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The military in general and the entire health care system in specific is in a period of change, right sizing, and cost containment. Many changes are in the near future for Naval Hospital, Charleston including building a Preferred Provider Organization (PPO), downsizing inpatient bed capability, developing business plans, redefining its mission, and re-engineering the way health care is delivered. The hospital has become increasingly dependent on the TPC programs to provide operational funding. This facility has developed a very successful TPC program for inpatient, outpatient and pharmacy. The hospital is seeking to expand the TPC program to include radiology services. Under the current regulatons the TPC program for radiology may not produce sufficient reimbursement to implement the program. It also may present many unique problems in terms of staffing, equipment usage, funding, and legal liability.

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A Cost Benefit Analysis of Implementing a Third Party Collections Program for Radiology at the Naval Hospital Charleston

A Graduate Management Project

Submitted to the Faculty of

Baylor University

In Partial Fulfillment of the

Requirements for the Degree

Master of Health Administration

by

Lieutenant Leo P. Kupper, MSC, USNR

May 1994

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I wish to extend a heart felt thanks to my wife and family for their support during this entire two year academic period.

ABSTRACT

The military in general and the entire health care system in specific is in a period of change, right sizing, and cost containment. Many changes are in the near future for Naval Hospital, Charleston including building a Preferred Provider Organization (PPO), downsizing inpatient bed capability, developing business plans, redefining its mission, and re-engineering the way health care is delivered. The hospital has become increasingly dependent on the TPC programs to provide operational funding. This facility has developed very successful TPC program for inpatient, outpatient and pharmacy. The hospital is seeking to expand the TPC program to include radiology services.

Under the current regulations the TPC program for radiology may not produce sufficient reimbursement to implement the program. It also may present many unique problems in terms of staffing, equipment usage, funding, and legal liability. The advantages of implementing the TPC program for radiology include maintaining workload as the active duty navy population decreases, providing an alternate source of funding for a decreasing budget, justifying current staffing, maintaining offered and seeking alternate use of CHAMPUS funds from the Lead Agent. The problems with implementing this program include finding and using an accurate staffing model, inaccurate data recording systems, limited equipment and resources, logistical

problems in returning external provider requests, employee morale issues, and possible public relation issues.

It is recommended the Naval Hospital, Charleston implement the TPC program for Radiology using a pilot study on Computerized Axial Tomography (CAT) scans to determine resource consumption, patient demand, program cost, and expected reimbursement. It is vital that a multi-disciplinary team using Total Quality Leadership (TQL) methods research the issues surrounding the program and determine the best alternatives. Under current regulations a fully implemented TPC program for radiology may be able to generate up to $30,000 a year in operational revenue for this facility.

DoD may wish to revise the TPC program for Radiology to include all radiological examinations on the premise that volume will increase the reimbursement rate.

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CHAPTER I

INTRODUCTION

Background

Naval Hospital, Charleston is a 90 bed primary care hospital. The United States Congress has authorized the Department of Defense (DoD) to

> "collect from third party payers to the fullest extent allowed by law. A third party payer has an obligation to pay the United States the reasonable cost of health care services provided in any facility of the Uniformed Services to a Uniformed Services beneficiary who is also a beneficiary under the third party payer's plan. The obligation is to the extent that the beneficiary would be eligible to receive reimbursement or indemnification from the third party payer if the beneficiary were to incur the costs on the beneficiary's own behalf. Authority to collect ... has been expanded to include outpatient services, automobile liability and no-fault insurance and Medicare supplemental insurance carriers." (DOD, 1993).

Naval Hospital (NH) Charleston has a strong Third Party Collections (TPC) program. This program enables our facility to supplement its operational budget to purchase minor equipment and support its organizational requirements. NH Charleston collected approximately 1.9 million dollars

for inpatient TPC and 0.7 million dollars for outpatient TPC. (Childers, 1994). In Fiscal Year 1993 (FY-93), DoD was authorized by Congress to bill third party payers (TPP) for the ancillary services of Pharmacy and Radiology. In FY-93, NH Charleston instituted the TPC program for Pharmacy prescriptions.

Problem Statement

The Comptroller for NH Charleston is seeking to implement the TPC program for Radiology services. This study will examine if Naval Hospital, Charleston can implement a TPC for Radiology services in a cost effective manner with minimal negative impact on patients and staff.

Review of the Literature

The TPC program is guided by Public Law, Title 10 and Title 42 United States Code, Title 32 Code of Federal Regulations, DoD, the Judge Advocate General (JAG), and Bureau of Medicine and Surgery (BUMED) regulations. The Public Law, Title 10, Title 32, and Title 42 provide the authorization from the U.S. Congress to implement the TPC program in DoD. The DoD and BUMED instructions provide the background, policy, procedures, organization, action, forms, and reports to be used in a TPC program.

The issue of TPC is also important in the civilian sector. As Healthcare Maintenance Organizations (HMOs) and Preferred Provider Organizations (PPOs) become squeezed for cash, these organizations are also seeking to claim

reimbursement from third party sources. A business or group will pay a HMO or PPO to render healthcare to its beneficiaries based on a flat rate per the average number of employees per month. Depending upon how the HMO or PPO has calculated its risk and managed its resources will determine whether the HMO or PPO is profitable or not.

HMOs and PPOs will generally have an approved provider list from which beneficiaries can seek healthcare and some sort of preauthorization criteria. If the patient does not follow the preauthorization criteria and seeks healthcare from an unapproved source, the patient may become liable for some or all of the expense generated from that healthcare encounter. In the DoD TPC program, the beneficiary is currently not liable for third party deductibles or copayments.

The civilian sector will also seek to collect from third party liability cases. Third party liability usually results from automobile accidents or liability cases. The HMO or PPO can expect long delays to occur in these types of collections due to the litigation and court cases which can result. The HMO or PPO generally can not collect until the litigation is completed.

DoD assigns responsibility to the Assistant Secretary of Defense (Health Affairs) to issue policy guidance and provide oversight for the TPC program. The Secretaries of the Military Departments are to ensure that TPC policies and

directions are implemented and carried out. Each commander of a Military Medical Treatment Facility (MTF) is responsible to implement a TPC program and to provide adequate resources, leadership, training and support. Each commander must be sure that all revenues collected are used appropriately.

Inpatient hospital care was subject to TPC starting October 1986. Authority to collect for Medicare supplemental plans, automobile liability, no-fault insurance plans, and outpatient care was given in November 1990. (DoD, 1993). The MTF is responsible to

> "implement an outpatient collection program unless analysis demonstrates that it would not be cost effective to implement the program on an interim basis." (DoD, 1993).

Health insurance information is certified by a beneficiary on each admission or visit to a MTF. A patient must update or sign a new form during their first visit or after 12 months have passed.

DoD has allowed TPC to be billed for MTF outpatient and inpatient care as well as for high cost ancillary services or prescription drugs. The DoD instruction states

> "If a Uniform Services facility provides certain high cost ancillary services, prescription drugs, or other procedures

based on a request from a source other than a Uniform Services facility and not incident to an outpatient visit or inpatient service at the MTF, the charge will not be based on the usual per visit or per diem rate. Rather, a separate standard rate shall be charged to recover the cost of the particular high-cost service, drug, or procedure provided. This special rule applies only to services, drugs, or procedures having a cost of at least $100. The cost for the services, drugs, or procedures to which this special rule applies shall be calculated and published annually by the DoD Comptroller." (DoD, 1993)

Table 1 contains the FY-93 radiology studies which could be billed for TPC and the calculated cost of the service. Table 2 contains the FY-94 allowed TPC radiology billing list. This list changed slightly from FY-93. The average CHAMPUS allowable for each type of study is provided as a comparison.

Table 1

FY-93 TPC Billed Radiology Services Allowed

Service	Cost of Service
Gastrointestinal (G.I.) Studies	$201
Computerized Axial Tomography (CAT) Scan	$287
Mammogram	$171
Magnetic Resonance Imaging (MRI)	$155
Nuclear Medicine Scan	$238
Thallium Scan	$688
Ultrasound	$1,109

Table 2

FY-94 TPC Billed Radiology Services Allowed

Service	Cost of Service	Avg Champus Allowable
X-Ray ribs (all), per side	$113	$17
X-Ray ribs, Bilateral	$114	$14
Upper gastrointestinal (G.I.) study with contrast	$143	$40
Hysterosalpingogram	$126	$32
Mammogram, Bilateral or with localization	$129	$31
Ultrasound, per study	$116	$60
Ultrasound, complete abdomen/biopsy	$198	$61
CAT scan head/brain without contrast	$193	$108
CAT scan head/brain with contrast	$218	$105
CAT scan head/brain with and without contrast, or post fossa and IAM/IACS	$307	$127
CAT scan chest	$339	$133
CAT scan abdomen, per study	$169	$141
CAT scan extremity without contrast	$197	$89
CAT scan extremity with contrast	$226	$157
CAT scan with and without contrast	$393	$150
MRI without contrast	$279	$200
MRI with contrast brain	$481	$481
MRI spine (all) chest and abdomen without contrast	$229	$229
MRI spine (all) with contrast	$507	$300
MRI extremities without contrast	$360	$298
MRI extremities with and without contrast	$279	$279

The first general x-ray study of ribs appears in the FY-94 list, while the nuclear medicine and the Thallium studies do not appear in the FY-94 listing. The average

CHAMPUS allowable is usually much less than the cost of service billed. The Third Party Payor is likely to have a set allowable payment for each type of study, much like the CHAMPUS allowable. The facility is unlikely to receive the billed cost of service and will most likely to forced to write off a considerable amount of the billed charges.

The radiological studies have been better defined with a more specific description of the study. The TPC office will need to assign CPT codes in order to submit a bill to the TPP. Some of the radiology exams can easily be assigned a CPT code, while other radiology examinations are not easily assigned a CPT code. With the FY-94 list detailing the radiological studies, a better matching to the CPT-4 code can be accomplished. This is important for billing purposes. Most TPP will look for the CPT-4 code and will have an allowable charge for that particular code. If no CPT-4 code is submitted on the bill to the third party payor, this may cause a delay in reimbursement as the TPP may ask for additional information before paying the charge.

The Radiology Department currently only accepts requests from military and NH internal partnership health care providers. If a patient presents a request for radiological services to the NH Radiology Department from a external civilian physician, the request is denied and the patient is instructed to locate a CHAMPUS provider of radiology services. Some of the reasons the request is

denied is due to a lack of manpower in the Radiology Department and the logistics of returning the transcription results to the requesting civilian physician. Since the Radiology Department at the NH Charleston does not accept radiological requests from external institutions, it cannot participate in the TPC program and collect TPC for high cost radiology procedures.

Purpose of the Study

The purpose of this study to perform a cost/benefit analysis of implementation of a TPC program for Radiology services at NH Charleston. Data related to direct care workload, CHAMPUS workload, Supplemental Medicine expenses and staffing requirements will be collected and analyzed. Internal and external implementation factors will also be considered.

CHAPTER II

METHODS AND PROCEDURES

Facility Assessment

Before the Radiology Department can be assessed, it is important to assess its parent organization - NH Charleston. The NH Charleston is a 90 bed inpatient acute care hospital. The hospital was commissioned for operation in 1973 and is accredited by the Joint Commission on Accreditation of Healthcare Organizations. The hospital is located at 3600 Rivers Avenue, North Charleston, South Carolina 29405-7769 and currently supports three branch medical clinics. The branch medical clinics are located at the Naval Shipyard Charleston, Naval Station Charleston, and Naval Weapons Station Charleston. The Naval Station and Naval Shipyard in Charleston have been ordered to cease operations and close by the 1993 Base Realignment and Closure Commission (BRAC). The Naval Station and Naval Shipyard will have reached operational closure by 1996. The Naval Station and Naval Shipyard Branch Medical Clinics will be closed shortly after the operational closure of the Naval Station and Naval

Shipyard. The Naval Weapons Station Branch Medical Clinic will continue operations.

Services provided: The NH Charleston has seven main operating rooms, one Urology operating room, two obstetric delivery rooms, one obstetric operating room, and one minor surgery room. The medical specialties provided are included in Table 3.

Table 3

Naval Hospital Charleston Medical Specialties Provided

Internal Medicine
Dermatology
Mental Health
Emergency Medicine
Pediatrics
Family Practice
Optometry
General Surgery
Physical Therapy
Orthopedics
Obstetrics
Gynecology
Ophthalmology
Urology
Otorhinolaryngology
Anesthesiology
Dental

Strengths and weaknesses: NH Charleston has several strengths which includes strong leadership at the executive level, strong working relationship with the Charleston Air Force Base (CAFB), excellent medical support in the civilian community, and a commitment to Total Quality Leadership (TQL) principles. The major weaknesses are rapid turnover of military personnel and the vulnerability to the BRAC.

The Executive Committee is very active and meets on a daily basis to discuss issues and to resolve problems. The Commanding Officer (CO) holds regular Captain's Call and meets with all the Department Heads on a monthly basis. The command makes heavy use of the electronic mail system and provides a daily bulletin for all hands.

The Air Force has been a key partner in providing healthcare to the Charleston area. The Executive Officer (XO) of the Naval Hospital will be an Air Force Colonel starting in June 1994. There is an Air Force Pediatrician on hospital staff, and the Air Force medical clinic has been represented at several major strategic planning meetings.

There are several community and specialty hospitals in the Charleston area as well as the Medical University of South Carolina. These civilian institutions provide an opportunity to establish internal and external partnerships and to provide specialty care not available at the Naval Hospital.

The command has instituted a TQL office and has staffed it with two full time employees. The Executive Steering Committee (ESC) meets on a weekly basis to examine issues related to TQL and to receive reports from the Quality Management Boards (QMB) and Process Action Teams (PAT).

As with most military facilities, there is a rapid turnover of military personnel. The CO and XO are here for only a two year tour, most officers are here three years,

and most enlisted staff are stationed for four years. Since most strategic plans take three to five years to implement, the military hospital staff will have almost a complete turnover before most strategic plans can be fully implemented. This can cause problems in personnel training and commitment to the strategic plan.

Most of the Navy active duty population will leave Charleston due to the BRAC order to close the Naval Base and Naval Shipyard. The Naval Hospital Charleston will be considered for closing during the 1995 BRAC. It is difficult to develop strategic plans if the future of the organization is unknown due to external forces.

Mission, goals and objectives: The mission statement of the NH Charleston is:

> "Our mission is to keep the active duty members of all Armed Services healthy, and to provide health care to their families and other beneficiaries entrusted to our care."

The vision statement of the NH Charleston is:

> "We want to be acknowledged as the model health care system in the Department of Defense.
>
> - By delivering responsive medical services to fleet and shore based activities.
>
> - By providing high quality, readily accessible care at a reasonable cost through successful integration of all military and community health care assets.

- By fostering a work environment which is professionally and personally enriching.

- By becoming an education center for primary medical care and community health.

- By Promoting innovation through the principles of Total Quality Leadership."

The guiding principles of the NH Charleston are:

"- Customer service will be our primary focus in all decision making.

- Recognize that our primary mission is to support combat readiness.

- Manage the delivery of health care services, balancing access, quality and cost containment.

- Enhance a spirit of teamwork to improve communication and eliminate organizational barriers.

- Care for all persons as unique human beings worthy of our best professional efforts applied with courtesy, compassion, and respect.

- Guard against inflexibility which interferes with meeting the needs of our customers."

The goals of the NH Charleston are:

"o We will remain committed to maintaining operational readiness.

o We will optimize the delivery of health care services.

o We will maximize the high quality of patient care.

o We will create an internal environment that combines a quality life style with meaningful, productive work.

o We will promote a positive internal and external image for the command.

o We will promote wellness, protect the environment and prevent disease.

o We will commit to professional development, education and training of all Naval Hospital personnel." (Naval Hospital Charleston Strategic Plan, 1994)

Relationship to civilian providers/institutions: The Naval Hospital has many direct relationships with civilian institutions and providers. The Naval Hospital has internal partnerships with civilian health care providers for anesthesiology, Family Practice, Internal Medicine, OB/GYN Nurse Practitioner, OB/GYN Nurse Midwife, Psychiatry, and Radiology. These internal partners come into the Naval Hospital and provide care for CHAMPUS eligible beneficiaries.

There are external partnerships for cardiac catherization and lithotripsy. Active duty military providers go into civilian institutions and provide care for DoD eligible beneficiaries.

The Naval Hospital has contracted out its Acute Care Clinic and its Emergency Room services. These services are provided inside the Naval Hospital for DoD eligible beneficiaries. All health care providers and support staff members are contract workers. The hospital also is responsible for oversight of the NAVCARE contract. NAVCARE is a contracted outpatient clinic which provides medical

care to DoD beneficiaries on an appointment basis. The scope of medical care that NAVCARE can provide is limited to primary care.

The NH Charleston is a Catchment Area Management (CAMCHAS) demonstration site. The CAMCHAS Network has 810 providers in 11 facilities covering 53 specialties. The network has negotiated discounts which range from 0% to 30% off the CHAMPUS allowable rates based upon individual fair market value evaluation.

Management and organization: There are about 1,300 military and civilian staff members at the NH. There are about 471 civilians, 287 officers and 511 enlisted personnel at this command. Table 4 contains the breakdown of the hospital staffing.

Table 4

Naval Hospital Charleston Staffing

	Military	Civilian
Staff officer	7	0
Physicians	108	4
Dentists	2	0
Nurses	117	33
Admin/allied health	45	41
Dental Tech	4	1
Corpsmen/Techs	483	98
Other staff	24	294

The NH is a military organization with a CO, XO, special assistants and eight directorates as the core management organization. The directorates are then broken down into departments and divisions. The command organization chart is listed as Appendix (A). The NH CO has

several organizations that he directly reports to including a Navy Responsible Line Commander, the Health Care Support Office Jacksonville, and DoD region 3 Lead Agent Commander.

The NH had an FY-93 operating budget of about 38.2 million dollars and a catchment area CHAMPUS cost of about 35 million dollars. The Charleston Catchment area currently contains approximately 95,000 DoD beneficiaries of which there are about 25,000 active duty, 38,000 dependents of active duty, and 32,000 retirees and dependents of retirees. With the closing of the Naval Shipyard and Naval Station in Charleston, the DoD beneficiary population is expected to shrink by FY-96 to a total of approximately 57,000 of which there are about 10,000 active duty, 15,000 dependents of active duty and 32,000 retirees and dependents of retirees. Appendix (B) contains the current and projected population data.

The NH is expected to downsize from a 90 bed inpatient facility to a 40 bed inpatient facility. Several medical specialties will have physicians transfer with no relief expected. The Family Practice Residency has been discontinued at the NH and the first and second year residents will be transferred to other residency programs. To meet the demands of the beneficiary population, health care will be delivered by a multi-disciplinary team approach.

Departmental Assessment - Radiology

The Radiology Department at the NH Charleston provides a wide range of diagnostic radiological services as requested by health care providers on an inpatient and outpatient basis for DoD eligible beneficiaries. The Radiology Department is located on the first floor of the Naval Hospital Charleston.

Services provided: The Radiology Department offers most forms of diagnostic radiology. The Radiology Spaces have 4 general purpose X-ray rooms, 2 combination fluoroscopy/general purpose X-ray rooms, 2 mammography rooms, a CAT scanning room, 3 ultrasound examination rooms, a nuclear medicine examination room, a nuclear medicine laboratory room, 4 radiologist reading rooms, 4 radiologist offices, general radiology darkroom, mammography darkroom, ultrasound darkroom, file rooms, technician offices, dressing rooms, and supply storage rooms.

The MRI services are provided by a mobile trailer which is on site about 3 days a week. Table 5 lists the radiological services that are offered at the NH. Table 6 outlines the equipment available in the Radiology Department, the date purchased and the expected date of replacement.

Table 5

Naval Hospital Charleston Radiology Services

Computerized Axial Tomography (CAT) scan
Magnetic Resonance Imaging (MRI)
Mammography
Nuclear Medicine
Portable Radiology
Ultrasound
Urology Imaging
Diagnostic radiology
Gastrointestinal (G.I.) studies
Fluoroscopy

Table 6

Naval Hospital Charleston Radiology Equipment

Equipment	Purchased	Replace Due
Explorer II portable x-ray unit	8/93	8/03
AMX-4 portable x-ray unit	6/92	6/00
AMX-3 portable x-ray unit	8/83	8/93
AMX-4 portable x-ray unit	3/88	3/98
Siemens CAT scanner	8/88	8/97
CGR Mod 500t mammography unit	5/87	5/95
LORAD screening mammography unit	11/93	11/01
LORAD Stereotactic mammo	11/93	11/01
DIASONICS ultrasound unit	1/89	1/95
DIASONICS ultrasound unit	9/90	9/96
G.E. RAD unit	11/91	11/99
VECTOR RAD/FLUORO/HEAD unit	4/92	4/00
G.E. RAD/FLUORO unit	5/87	5/95
G.E. RAD/TOMO unit	NA	NA
PICKER RAD/TOMO unit	3/92	3/00
PICKER RAD unit	5/93	5/01
KODAK M6B film processor	10/87	10/95
KODAK M6B film processor	8/88	8/96
KODAK M35AM film processor	NA	NA
KODAK 480RA film processor	12/93	12/01
KODAK M35 film processor	NA	NA

* NA = Information not available

The Radiology Department may be able to increase workload for CAT, mammography, ultrasound, upper GI and nuclear medicine without a negative impact on operational

effectiveness. The Radiology Department floor plan is listed in Appendix (C).

Strengths and Weaknesses: The Radiology Department has a full compliment of personnel, relatively good equipment and access to a broad base of radiology services in the civilian community. Some of the weaknesses include the rapid turnover of department heads and possible problems modernization equipment at its replacement date due to BRAC considerations.

The Radiology Department is fully staffed and is at the number of authorized billets with both military and civilian personnel. Its equipment is fairly modern and state of the art. The department has access to the medical university and other civilian resources for professional development and medical support.

The Radiology Department has had four different department heads within the last four years. This make it difficult to provide consistency for departmental planning and leadership purposes.

With the hospital under consideration for closure by the FY-95 BRAC, it will be difficult to justify replacement of major pieces of equipment on projected replacement dates. There may be a feeling at the BUMED and DoD level that the replacement equipment or money could be better used at another facility not under consideration for closure.

Mission, goals and objectives: The Radiology Department has not established its mission, goals, or objectives at this point. The department is examining the command mission, goals, and objectives and is in the process of establishing departmental mission, goals, and objectives. It is fairly important for the Radiology Department to establish these so that it can develop its business plan and proceed with its strategic planning.

Relationship to civilian providers/institutions: The Radiology Department has a civilian radiologist on staff. It also shares the mobile MRI unit with other civilian institutions.

The 437th Medical Squadron at the Charleston Air Force Base has very limited radiological capability and their radiology clinic is staffed with 3 technicians. All complex radiological exam requests are sent to the NH Charleston for scheduling.

Management and organization: The Radiology Department has a operating target for its FY-94 budget of $427,500 and the Nuclear Medicine Clinic is budgeted for $103,550. The department has a civilian labor budget of $547,692.

The Radiology Department Head reports to the Director of Ancillary Services for command and control purposes. The department has a departmental staffing of 53 which includes 3 officers, 28 enlisted and 22 civilians. These numbers include the Clinical Nuclear Medicine staff, but do not

include the Radiation Safety Office staff. Table 7 contains the authorized billets and staffing levels for both civilian and military for the Radiology Department. In the radiology Department, there are two personnel on a limited duty status and three personnel engaged in on the job training. These personnel may represent more of a drain on the supervisory and technical personnel than an asset. If these five personnel are subtracted from the total manpower count, then the Radiology Department is at its authorized manpower of 48 people.

Table 7

Naval Hospital Radiology Department Staffing

Active Duty	Billets Authorized	Currently On Board
Radiologists	3	3
HM 8452	13	12
HM 8451	8	8
HM 8416	2	3
Limited Duty	0	2
On Job Training	0	3
	26	31
Civilian	**Authorized**	**On Board**
Radiologist	1	1
Ultrasound Technician	2	2
Radiology Technician	8	8
Transcriptionists	2	2
Secretary	1	1
Clerical	7	7
Darkroom	1	1
	22	22
	48	53

The NH Charleston is scheduled to downsize to 40 inpatient beds and 700 staff by the end of FY-95. To

accomplish the downsizing, a reduction in civilian force from 500 to 300 civilian employees is expected to take place. Due to the downsizing of the hospital, the Radiology Department is scheduled to lose 14 of the 22 civilian positions. The Radiology Department Head has expressed concern that the scheduled reduction in civilian positions will cause the Radiology Department to be short staffed. The proposed reduction is under review. The positions to be disestablished account for about $282,315 of the civilian labor budget. Table 8 lists the radiology positions which are scheduled to be disestablished by the end of FY-95.

Table 8

Naval Hospital Charleston Radiology Department
Reduction In Force

Medical Instrument Technician	GS-9	32,466
Lead diagnostic rad technician	GS-8	29,396
Diagnostic rad technician	GS-7	26,541
Diagnostic rad technician	GS-7	26,541
Diagnostic rad technician	GS-7	26,541
MED clerk	GS-5	21,426
OA clerk	GS-3	17,062
OA clerk	GS-3	17,062
OA clerk	GS-3	17,062
Health aid	GS-3	17,062
File clerk	GS-3	17,062
File clerk	GS-3	17,062
File clerk	GS-3	17,062

Third Party Collections - Inpatients

The NH Charleston collected approximately 1.9 million dollars for inpatient TPC in FY 93. (Childers, 1994). When the patient is sent to the Admissions Department, the TPC form (NHCHASN 7000/1) is completed and signed by the patient. This form indicates whether the patient has a

separate health insurance policy other than CHAMPUS or MEDICAID.

An admission package is forwarded to the TCP office and the patient is placed in an incomplete status. When the patient is discharged, the Patient Administration staff will encode the inpatient record and assign a Diagnostic Related Grouping (DRG) to the inpatient record. The Composite Health Care System (CHCS) will change the record status from incomplete to complete. This information is forwarded to the TCP Department. If the patient has a third party payer, a bill is generated and sent to the third party payer. If the patient does not have a third party payer, then the TCP Department admission package is destroyed.

Third party Collections - Outpatient

The NH Charleston collected approximately 0.7 million dollars for outpatient TCP. (Childers, 1994). When the outpatient medical record is created, the TCP form (NHCHASN 7000/1) is completed and signed by the patient. This form indicates whether the patient has a separate health insurance policy other than CHAMPUS or MEDICAID. When the patient presents to an outpatient clinic for treatment, the NHCHASN 7000/1 form is checked to see if the patient has a separate health insurance policy or not.

A patient encounter form is completed at the clinic reception desk by the clinic receptionist. The health care provider needs only to check a diagnosis box and return the

encounter form to a central collection area. The encounter forms are collected from the clinics on a daily basis by the TPC department staff. Bills are generated and sent to the third party payers.

Approximately 15 to 20 percent of the total patient visits have some form of third party payer. When the patient does have a third party payer and a bill is sent to the third party payer, about 60 percent of the billed amount is allowed and paid. (Childers, 1994). The Outpatient TPC Summary by Clinic is contained in Appendix (D).

Third Party Collections - Pharmacy

The NH Charleston Pharmacy started TCP in October 1992. The Pharmacy had already been accepting prescriptions from external providers and saw the TCP as a way of being reimbursed for workload already being performed. Table 9 is the TPC summary for the NH Charleston Pharmacy.

Table 9

OUTPATIENT TPCP SUMMARY FOR PHARMACY
01 OCT 93 to 11 APR 94

	Number	Amount
Billed	358	$55,009
Collected	56	$6,137
Write-offs	444	$7,790

Third Party Collections - BUMED Activities

The Bureau of Medicine and Surgery (BUMED) gives TPC program oversight responsibility to MED-142B. MED-142B is responsible to give guidance to BUMED activities in implementing their TPC programs. In second quarter FY-93,

NH Charleston had the 4th highest BUMED TPC billing and collection rate out of 25 BUMED activities. NH Charleston had reported cumulative billings in the amount of $2,270,759 for second quarter FY-93. The only BUMED facilities with a better TPC billing rate were major teaching hospitals which were the National Naval Medical Center (NNMC) with a billing of $4,100,060; Naval Medical Center (NMC) Portsmith with $3,754,824; and NMC San Diego with $2,950,689. The BUMED TPC Summary Report for 2nd quarter FY-93 is located in Appendix (E).

Direct Care Workload - Radiology

The major method of accounting for workload in the MTF in DoD is the Medical Expense Performance Reporting System (MEPRS). According to the Defense Medical Information System (DMIS), NH Charleston Radiology had a FY-92 MEPR weighted workload value of 297,001. These values indicate the values for both inpatient and outpatient radiology procedures. Each full time equivalent Radiologist should be able to process 10,000 to 15,000 diagnostic procedures per year. (Sunshine, Bansal, 1992). In FY-92, the Radiology Department performed approximately 48,000 studies with the breakdown of studies contained in table 10. (CHCS, 1994).

Table 10

FY-92 Breakdown of Radiology Studies

Computerized tomography	2,580
Magnetic Resonance Imaging	738
Ultrasound	4,788
Nuclear Medicine	1,094
Mammography	1,968
Fluoroscopy	1,434
Plain films	35,286

In FY-93, the Radiology Department again performed approximately 57,000 studies with the breakdown of studies contained in table 11. (Radiology QI minutes, 1994).

Table 11

FY-93 Breakdown of Radiology Studies

Computerized tomography	2,364
Magnetic Resonance Imaging	1,199
Ultrasound	6,000
Nuclear Medicine	1,044
Mammography	1,884
Fluoroscopy	1,378
Plain films	44,448

There are reported problems in workload accounting and certain procedures may in fact be under accounted for or over stated in terms of workload reporting. In some cases, Radiology procedures may be double counted to account for workload performed. It is difficult to have a standard reporting process, and a combination of documented workload and Radiology Department Head reporting have been used to generate the workload numbers. This will be different than numbers contained in the standard reporting systems and the numbers which are reported to higher authority.

Table 12 outlines the number of inpatient and outpatient radiologic procedures performed at the Naval Hospital for FY-92 and FY-93. The number of procedures is extracted for the Radiology Quality Assurance Minutes and the CHCS management reports.

Table 12

Naval Hospital Radiology Number of Inpatient and Outpatient Examinations

FY92	1991			1992										
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	AVG
CT	0	0	0	0	0	0	0	65	228	207	166	167	833	167
MRI	67	64	65	67	48	73	71	56	63	52	63	49	738	62
ULTRASOUND	612	568	557	388	297	362	345	339	328	324	319	349	4788	399
IVP/CYSTO/VCUG	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	68	63	131	66
NUC MED	72	37	235	27	95	88	99	91	86	87	87	90	1094	91
MAMMO	184	155	121	204	159	189	204	190	177	75	170	140	1968	164
FLUORO	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	105	118	223	112
PLAIN FILMS	3447	2968	2762	3020	2706	3349	3028	2915	2677	2702	2587	2770	34931	2911
PORTABLES	283	199	235	319	264	277	198	217	227	227	300	300	3046	254
UROLOGY	32	38	6	0	2	4	4	8	1	9	60	60	224	19
CLINICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
TOTALS	4697	4029	3981	4025	3571	4342	3949	3881	3787	3683	3925	4106	47,976	3,998

Table 12

Naval Hospital Radiology Number of Inpatient and Outpatient Examinations

FY93	1992			1993										
	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	TOTAL	AVG
CT	172	203	176	192	212	204	197	204	239	191	211	167	2368	197
MRI	64	81	84	78	111	105	89	118	146	119	103	101	1199	100
ULTRASOUND	344	373	285	281	346	326	345	347	339	303	402	359	4050	338
IVP/CYSTO/VCUG	32	36	33	31	51	35	33	21	28	70	75	72	517	43
NUC MED	80	99	84	81	98	81	83	97	106	83	81	70	1043	87
MAMMO	132	174	100	105	174	163	178	206	181	175	172	128	1888	157
FLUORO	132	100	76	83	128	149	135	117	123	116	119	100	1378	115
PLAIN FILMS	2575	2933	2357	3153	2989	2918	3189	2693	2535	2177	2345	2452	32316	2693
PORTABLES	295	300	245	328	45	324	326	230	384	171	176	184	3008	251
UROLOGY	60	60	60	60	60	60	60	60	60	60	60	60	720	60
CLINICS	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	700	700	700
TOTALS	3886	4359	3500	4392	4214	4365	4635	4093	4141	3465	3744	4393	49,187	4,099

NA - INFORMATION NOT AVAILABLE

A major problem with comparison of direct care workload and CHAMPUS workload is CHAMPUS workload is reported by CPT code and direct care workload is reported by weighted workload values. The only way to break down the direct care workload is by depending on internal radiology department reporting. Since there is no standard internal reporting, the reporting method and results will vary by institution and department supervisors.

Radiology departments have been allowed to decide internally whether to accept civilian requests for radiological procedures or not. Radiology Department heads may make this decision based on the resources available such budget, personnel and equipment. The Radiology workload summary is contained in Appendix (F).

It would be difficult in immediately start accepting every request for Radiological studies from an external provider without having an adverse impact on the Radiology Department. The NH Charleston Radiology Department could probably increase capability in several areas by extending normal working hours or adjusting personnel assignments. The primary concern of the Radiology Department Head is to provide high quality and responsive service to the providers it serves.

CHAMPUS Workload - Radiology

The TPC program for Radiology is designed to allow MTF radiology departments to be reimbursed for external civilian radiology requests. The Charleston Catchment Area Management Database tracks outpatient radiology procedures charged to CHAMPUS by CPT code. The CPT codes for radiology are a five digit number with a range of 70000 to 79999. The CPT codes are generally grouped by anatomy for CT, MRI and plain films. For example, a CT of the abdomen with contrast is coded 74160, abdomen CT without contrast is 74150, abdomen CT with and without contrast is 74170, abdomen MRI is 74181, and plain film abdomen is coded from 74000 to 74022. This manner of coding makes it extremely difficult to separate and count MRI, CT and plain film procedures. Nuclear Medicine, Ultrasound and vascular procedures are coded sequentially which makes it easier to count these types of studies.

The CHAMPUS database reported about 27,948 outpatient radiological procedures with a government allowance of about $2.9 million dollars in FY-92. This allowance would have been reduced by patient deductibles and copayments. Table 13 contains the outpatient radiological were assigned to the NH Charleston catchment area and were billed to CHAMPUS in FY- 92.

Table 13

FY-92 CHAMPUS Radiology Services

Computerized tomography	1,021
Magnetic Resonance Imaging	451
Ultrasound	1,376
Nuclear Medicine	440
Mammography	866
Fluoroscopy	480
Plain films	21,494
Radiation Therapy	1,729

In FY-93, CHAMPUS processed claims for approximately 35,059 outpatient radiological procedures. Table 14 contains the outpatient radiological were assigned to the NH Charleston catchment area and were billed to CHAMPUS in FY-93. A detailed listing of the FY-93 Radiology CHAMPUS procedures is contained in Appendix (G).

Table 14

FY-93 CHAMPUS Radiology Services

Computerized tomography	1,518
Magnetic Resonance Imaging	376
Ultrasound	1,491
Nuclear Medicine	508
Mammography	754
Fluoroscopy	681
Plain films	27,895
Radiation Therapy	1,763

Supplemental Medicine Workload - Radiology

Supplemental Medicine is medical care provided to DoD beneficiaries in the NH Charleston catchment by external organizations and billed to the NH Charleston. All active duty personnel who receive authorized care from civilian medical facilities fall under this category. Dependents and retirees may have their medical costs covered by supplemental medicine if they are admitted to the Naval Hospital but must be transported to a civilian hospital for specific tests and returned to the Naval Hospital after the testing is completed.

NH Charleston leases a MRI trailer to perform MRI studies on site three days a week. Supplemental Medicine funding has historically paid the cost of the MRI trailer and testing. NH Charleston may shift to a Cooperative Care Program which would allow the MRI company to bill CHAMPUS for performing studies on dependents and retirees and would require the dependents and retirees to cost share with deductibles and copayments for MRI studies performed on site.

Staffing Models - Radiology

If the TPC program for radiology was implemented at the NH Charleston, it could dramatically increase the workload for the department without a corresponding increase in personnel. One of the major reasons to not implement the TPC program for Radiology is the concern of not having

enough manpower to meet the expected patient demand. It is important to examine the current staffing level against some sort of standard to determine whether the Radiology Department is adequately staffed.

In 1992 the Radiology Department completed a desk audit which determined its current staffing level. The operational audit, to determine the most efficient organization, resulted in a calculated 6811.763 monthly man hours and asked for 47 billets. (Naval Hospital, 1992).

Realizing personnel assignments change as the workload requirements and military billet authorizations change, to look at the personnel assignments is looking at a snapshot in time. Table 15 contains the current staffing assignments for the NH Radiology Department.

To give another sanity check to the manpower requirements, the Defense Medical Information System (DMIS) was queried. The latest workload information contained in DMIS is for FY-92. The weighted workload for NH Charleston Radiology for FY-92 was 297001. (DMIS, 1994). The Non-commissioned Officer in Charge (NCOIC) or Leading Petty Officer (LPO) for radiology of other similar size facilities with similar weighted workload were contacted and compared in Table 16. Most of these facilities have CAT, Mammography, Ultrasound, and Nuclear Medicine capability. The facility was asked for radiology authorized billets and not personnel on board to help normalize for any manpower

overstaffing or shortages. The authorized billets represent both technical and clerical support staff. The weighted workload is for FY-92 while the facility bed size and manpower authorizations are from FY-94. While this may skew the data, it is unlikely major manpower changes occurred in this time period for the majority of facilities. Weighted workload does not take into account the complexity of the study or the acuity of the patient. A department performing many simple exams may receive as much workload credit as a department which performs a few complex examinations. This was not a scientific survey and has a large margin of error, but provides another method of comparison for radiology staffing.

Table 15

Current Radiology Staffing Positions

Secretary	1
Film check	1
Appointment clerk	1
Front desk personnel	3
AM shift	12
PM shift	6
Night shift	2
Dark room	1
File room	3
Transcription	2
Ultrasound	2
Mammography	2
CAT	1
Operating Room	1
Nuclear Medicine	3
Branch Medical Clinics	3
Leading Chief Petty Officer	1
Staff Radiologists	4
Limited duty personnel	2
On the job training personnel	3
	53

Table 16

Weighted Workload Comparisons

Activity name	Weighted Workload	Beds	Authorized Enl/civ Billets	Rad Billets
NH Bremerton, WA	383067	98	23	3
Blanchfield ACH, KS	370065	245	37	5
58th Medical Group, AZ	333318	60	18	3
Ireland ACH, KY	300803	159	30	4
NH Charleston, SC	297001	90	44	4
646th Medical Group, FL	270287	105	31	4
56th Medical Group, FL	223099	45	24	4

The FY-92 DMIS Radiology workload report is contained in Appendix (H). Noted that there is wide variation between the weighted workload value and the number of authorized billets for both support and professional staff. The high end weighted workload of 383067 for NH Bremerton has one less authorized technical/support and one less authorized

radiologist than the low end weighted workload of 223099 for the 56th Medical Group. It is important to note that scientific conclusions cannot be drawn from this data, but does provide a snapshot of how other Radiology Departments are staffed in DoD.

A important consideration is the workload on the Radiologist. Even if enough technical and support personnel are available, there must be enough Radiologists available to interpret the radiological studies. Studies in the literature suggests a diagnostic only radiology practice should average 10,000 to 15,000 procedures per full time equivalent Radiologist per year. (Sunshine, Bansal 1991). The NH Charleston radiology averages about 48,000 procedures per year and is authorized 4 full time Radiologists. The Radiology Department Head feels the number of procedures per year is actually closer to 60,000. These figures indicate the number of radiologists authorized at the NH are justified and perhaps may be able to justify a slight increase in the professional workload for the radiologists.

Another method of determining manpower requirements is the use of a Air Force staffing standard for Radiology. The Air Force formula was used due to its availability and ease of usage. A Navy staffing formula was not readily available.

The Air Force formula for calculating required monthly manhours for non-phase II training sites is:

$$Y1 = 199.9 + 0.4411Xt$$

where

$$Xt = X1 + 2.682X2 + 5.495X3 + 2.511X4 + 27.328X5 + 4.185X6 + 8.203X7 + 13.186X8$$

where

X1 = Average monthly radiographic procedures
X2 = Average monthly portable procedures
X3 = Average monthly fluoroscopic special and routine specials
X4 = Average monthly mammographic procedures
X5 = Average monthly weighted special procedures such as angiograms
X6 = Average monthly ultrasound procedures
X7 = Average monthly CAT scan procedures
X8 = Average monthly nuclear medicine procedures

Applying the formula using the radiology direct care FY-93 data as reported in the Radiology QI minutes:

X1 = 3453 avg monthly radiographic procedures, includes branch medical clinics and Urology
X2 = 251 avg monthly portable procedures
X3 = 115 avg monthly fluoroscopic procedures
X4 = 157 avg monthly mammographic procedures
X5 = 12 avg monthly weighted special procedures
X6 = 500 avg monthly ultrasound procedures
X7 = 297 avg monthly CAT and MRI scan procedures
X8 = 87 avg monthly nuclear medicine procedures

$$Xt = 3453 + 2.682(251) + 5.495(115) + 2.511(157) + 27.328(12) + 4.185(500) + 8.203(297) + 13.186(87)$$

$$Xt = 11,155.743$$
$$Y1 = 199.9 + 0.4411Xt$$
$$Y1 = 5120.7$$ required monthly man hours

The Air Force applies a man-hour availability factor (MAF) of 160.7 to determine work center manpower requirements. (AFR 25-5, 1987) Applying the MAF to the required monthly man hours:

work center manpower requirements = required monthly man hours / MAF

work center manpower requirements = 5120.7 / 160.7

work center manpower requirements = 31.86

The model suggests to subtract nuclear medicine technicians out of the model, perform an additional mathematical operation, and then add the nuclear medicine technicians back into the model. This additional step was not performed and the Nuclear Medicine Technicians numbers are included in the model. The calculated monthly average number of procedures for ultrasound for FY-93 is 338. The monthly average number of ultrasounds has been increased to 500 to compensate for additional unreported workload.

By applying the Air Force staffing model to the FY-93 direct care workload for radiology, the results indicate the requirement for 32 full time equivalents. The Air Force standard manpower table suggests the following specialty titles and grades contained in table 17. (AFMD 5202, 1991).

Table 17

Suggested Air Force Staffing Model

Diagnostic Radiologists	*	3
Radiologic Superintendent	E-8	1
Radiologic Technician	E-7	2
Radiologic Technician	E-6	3
Radiologic Specialist	E-5	6
Radiologic Specialist	E-4	15
Medical Admin Specialist	E-4	1
Apprentice Admin Specialist	E-3	1
		--
		32

This model assumes the normal operating hours are 8 hours per day, 5 days a week with additional support for patient care available 24 hours per day, 7 days per week. Staffing beyond normal duty hours must be accommodated within the manpower requirements provided by this manpower standard.

The Air Force staffing formula and the informal survey of radiology departments would indicate the Naval Hospital Charleston Radiology Department may be overstaffed for the technical and support manpower. The Air Force staffing model suggests the Radiology Department is overstaffed by 16 billets military or civilian billets. The radiology department may be able to process increased workload without a negative impact on current technical staffing. The Radiologist staffing appears to be correct and may require additional professional manpower to increase workload without a negative impact on the professional staff.

CHAPTER III

RESULTS

Cost/Benefit Analysis

There are some general issues that must be considered before implementing a TPC program for Radiology. There is a real danger for the Radiology Department to become overwhelmed in terms of workload if it begins to accept all external civilian requests for radiological studies. DoD has set standard billing charges for selected radiology studies, but in many cases these charges are higher than the average CHAMPUS allowable. In this cost/benefit analysis, the CHAMPUS allowable is about $0.415 for every $1.00 billed.

The four major channels for military radiological services in Charleston are CHAMPUS providers, Supplemental Medicine, NAVCARE, and the Naval Hospital. There are some exams such as certain cardiac procedures and radiation therapy which cannot be performed at the Naval Hospital. These exams will continue to be paid by CHAMPUS or Supplemental Medicine. Another important consideration which cannot be quantified at this point is the radiological

exams paid by Medicare for retirees and dependents over the age of 65.

NAVCARE provides general diagnostic radiological services and mammograms. The NAVCARE mammography services are provided as requested by a physician. It is difficult to predict if there would be a workload shift from NAVCARE to the NH Charleston, if the NH Charleston began to accept external provider requests. The general diagnostic radiology at NAVCARE is used to support NAVCARE physicians and should not impact the Naval Hospital Radiological services.

The Supplemental Medicine expenses are used to pay for active duty medical services unavailable at this facility. It also pays for active duty members assigned to this catchment area, but are given medical services outside this catchment area while they are on leave, TAD, or other authorized reasons.

MODEL 1 - ACCEPT ALL EXTERNAL CIVILIAN REQUESTS FOR RADIOLOGICAL PROCEDURES WITH MAXIMUM WORKLOAD EXPECTATIONS:

If the TPC program for Radiology is implemented, the major impact on the Naval Hospital Radiology will be from the patients receiving radiological requests from external providers and receiving these radiological services from CHAMPUS sources. The Naval Hospital processed about 58,000 radiological exams in FY-93, while about 33,000 outpatient radiological exam requests were processed by CHAMPUS. If

all the exams that were processed by CHAMPUS were instead completed at the Naval Hospital, this would increase the current Naval Hospital Radiology workload by 58% to about 91,000 radiological exams processed. This would require each of the four current Radiologists to read about 23,000 procedures per year. This number of procedures would overwhelm the professional staff. In fact by applying the Air Force Staffing model, this level of workload would require 6 Radiologists and 42 support staff. 'A contract Radiologist is paid by a percentage of the discounted CHAMPUS allowable per study. For the current contract radiologist, this fee averages between $30,000 to $50,000 per month. The maximum TPC for radiology to be billed would be about $240,000 for approximately 1,540 procedures. This amount would be the cost of service billed for all allowable radiology procedures. Since most TPPs will pay only the allowable, the maximum TPC for radiology that could be collected would be around $60,000 per year. The $60,00 figure is based on the following assumptions:

1. 100% of all the patients with an external provider requests for radiology came to the Naval Hospital for service.
2. The current service mix will remain the same as FY-93 service mix.
3. There is an external demand for about 31,000 radiological procedures. 7,700 exams out of this 31,000 will be a exam that is on the TPC for radiology allowable service for reimbursement listing.
4. Approximately 20% of the patients seen will have a third party payor. This means 1,500 exams out of this 7,700 exams meet both criteria of being on the TPC allowable listing and the patient having a third party payor.

5. The third party payor will have a payment schedule similar to the CHAMPUS allowable schedule.

6. There will not be a significant percentage of Medicare eligible patients with external provider requests for radiological services.

7. There will be a $40,000 increase in contrast media costs for CAT scans

8. The radiology average monthly workload would be increased by:

2325 radiographic procedures
0 portable procedures
57 fluoroscopic procedures
259 mammographic procedures
0 weighted special procedures
125 ultrasound procedures
158 CAT and MRI scan procedures
42 nuclear medicine procedures

Staffing model:

X1 = 5778 avg monthly radiographic procedures, includes branch medical clinics and Urology
X2 = 251 avg monthly portable procedures
X3 = 172 avg monthly fluoroscopic procedures
X4 = 416 avg monthly mammographic procedures
X5 = 12 avg monthly weighted special procedures
X6 = 625 avg monthly ultrasound procedures
X7 = 455 avg monthly CAT and MRI scan procedures
X8 = 129 avg monthly nuclear medicine procedures

$$Xt = 5778 + 2.682(251) + 5.495(172) + 2.511(416) + 27.328(12) + 4.185(625) + 8.203(455) + 13.186(129)$$

$$Xt = 16,817.19$$

$$Y1 = 199.9 + 0.4411Xt$$

$$Y1 = 7,617.96 \text{ required monthly man hours}$$

$$\text{work center manpower requirements} = 7,617.96/160.7$$

$$\text{work center manpower requirements} = 48$$

Diagnostic Radiologists	*	6
Radiologic Superintendent	E-8	1
Radiologic Technician	E-7	3
Radiologic Technician	E-6	6
Radiologic Specialist	E-5	8
Radiologic Specialist	E-4	18
Medical Admin Specialist	E-4	3
Apprentice Admin Specialist	E-3	3
		48

The staffing model would indicate the Radiology Department has enough support staff to process all external and internal requests, but would have not enough Radiologist support. The cost of additional contract Radiologists would exceed the maximum TPC that could be expected. The Radiology staff would also most likely have to purchase additional equipment and to extend the normal working hours of the department in order to process the additional workload.

MODEL 2 - ACCEPT ALL EXTERNAL PROVIDER REQUESTS FOR RADIOLOGICAL PROCEDURES WITH REDUCED WORKLOAD EXPECTATION: It is unlikely that any or all of these assumptions are true. It is unlikely 100% of all CHAMPUS patients would return to the Naval Hospital for any number of reasons. Some patients may feel the waiting times are excessive or there may be a perceive lower quality of care by going to a military treatment facility. The Naval Hospital Pharmacy estimates 40% of its workload is from filling external provider prescriptions.

By being a little more liberal in the workload assumption, this model will predict about 50% of all external provider requests for radiological services will be presented to the Naval Hospital. This model will predict the TPC for radiology to be billed would be about $120,000 for approximately 770 procedures. The TPC for radiology to

be collected would be around $30,000 per year. This figure is based on the following assumptions:

1. 50% of all the patients with an external provider requests for radiology came to the Naval Hospital for service.
2. The current service mix will remain the same as FY-93 service mix.
3. There is an external demand for about 15,500 radiological procedures. 3,850 exams out of this 15,500 will be a exam that is on the TPC for radiology allowable service for reimbursement listing.
4. Approximately 20% of the patients seen will have a third party payor. This means 770 exams out of this 3,850 exams meet both criteria of being on the TPC allowable listing and the patient having a third party payor.
5. The third party payor will have a payment schedule similar to the CHAMPUS allowable schedule.
6. There will not be a significant percentage of medicare eligible patients with external provider requests for radiological services.
7. There will be a $20,000 increase in contrast media costs for CAT scans
8. The radiology average monthly workload would be increased by:

1162 radiographic procedures
0 portable procedures
29 fluoroscopic procedures
130 mammographic procedures
0 weighted special procedures
62 ultrasound procedures
79 CAT and MRI scan procedures
20 nuclear medicine procedures

Staffing model:

X1 = 4616 avg monthly radiographic procedures, includes branch medical clinics and Urology
X2 = 251 avg monthly portable procedures
X3 = 143 avg monthly fluoroscopic procedures
X4 = 286 avg monthly mammographic procedures
X5 = 12 avg monthly weighted special procedures
X6 = 563 avg monthly ultrasound procedures
X7 = 376 avg monthly CAT and MRI scan procedures
X8 = 109 avg monthly nuclear medicine procedures

$$Xt = 4616 + 2.682(251) + 5.495(143) + 2.511(286) + 27.328(12) + 4.185(563) + 8.203(376) + 13.186(109)$$

$$Xt = 13,998$$

$$Y1 = 199.9 + 0.4411Xt$$

Y1 = 6,374.52 required monthly man hours
work center manpower requirements = 6,374.52/160.7
work center manpower requirements = 40

Diagnostic Radiologists	*	4
Radiologic Superintendent	E-8	1
Radiologic Technician	E-7	3
Radiologic Technician	E-6	4
Radiologic Specialist	E-5	7
Radiologic Specialist	E-4	17
Medical Admin Specialist	E-4	2
Apprentice Admin Specialist	E-3	2
		--
		40

This staffing model would suggest the Radiology Department has enough support staff to process all external and internal requests, but would have not enough Radiologist support. The radiologists would have to read 19,000 exams per radiologist per year. The cost of additional contract Radiologists would exceed the maximum TPC that could be expected. The Radiology staff would most likely have to purchase additional equipment and to extend the normal working hours of the department in order to process the additional workload.

MODEL 3 - ACCEPT ONLY EXTERNAL PROVIDER REQUESTS FOR RADIOLOGICAL PROCEDURES WITH TPC REIMBURSEMENT POTENTIAL WITH REDUCED WORKLOAD EXPECTATION: Another possible option is to take the hard line approach and only accept external provider requests for radiology services which are on the TPC allowable reimbursement listing. This model assumes only 50% of all CHAMPUS patients would return to the Naval Hospital for radiological services.

This model will predict the TPC for radiology to be billed would be about $120,000 for approximately 770 procedures. The TPC for radiology to be collected would be around $30,000 per year. This figure is based on the following assumptions:

1. 50% of all the patients with an external provider requests for radiology came to the Naval Hospital for service.
2. The current service mix will remain the same as FY-93 service mix.
3. There is an external demand for about 15,500 radiological procedures. 3,850 exams out of this 15,500 will be a exam that is on the TPC for radiology allowable service for reimbursement listing. The other 11,650 external exams will be referred back into the external environment.
4. Approximately 20% of the patients seen will have a third party payor. This means 770 exams out of this 3,850 exams meet both criteria of being on the TPC allowable listing and the patient having a third party payor.
5. The third party payor will have a payment schedule similar to the CHAMPUS allowable schedule.
6. There will not be a significant percentage of medicare eligible patients with external provider requests for radiological services.
7. There will be a $20,000 increase in contrast media costs for CAT scans
8. The radiology average monthly workload would be increased by:

0 radiographic procedures
0 portable procedures
29 fluoroscopic procedures
130 mammographic procedures
0 weighted special procedures
62 ultrasound procedures
79 CAT and MRI scan procedures
20 nuclear medicine procedures

Staffing model:

X1 = 3453 avg monthly radiographic procedures, includes branch medical clinics and Urology
X2 = 251 avg monthly portable procedures
X3 = 143 avg monthly fluoroscopic procedures
X4 = 286 avg monthly mammographic procedures
X5 = 12 avg monthly weighted special procedures
X6 = 563 avg monthly ultrasound procedures

X7 = 376 avg monthly CAT and MRI scan procedures
X8 = 109 avg monthly nuclear medicine procedures

Xt = 4616 + 2.682(251) + 5.495(143) + 2.511(286) +
27.328(12) + 4.185(563) + 8.203(376) + 13.186(109)

Xt = 12,835.243
Y1 = 199.9 + 0.4411Xt
Y1 = 5,861.53 required monthly man hours
work center manpower requirements = 5,861.53/160.7
work center manpower requirements = 37

Diagnostic Radiologists	*	4
Radiologic Superintendent	E-8	1
Radiologic Technician	E-7	3
Radiologic Technician	E-6	4
Radiologic Specialist	E-5	6
Radiologic Specialist	E-4	16
Medical Admin Specialist	E-4	1
Apprentice Admin Specialist	E-3	2
		--
		37

This staffing model would suggest the Radiology Department has have enough support staff to process all external and internal requests, and would have enough Radiologist support. The radiologists would have to read about 62,000 total exams which is about 15,500 exams per radiologist per year. Since the recommended number of procedures per radiologist per year is 10,000 to 15,000 procedures, this places the number of exams to be read by a radiologist at the upper end of the recommendation. This will eliminate the requirement for additional contract Radiologists. The Radiology staff may have enough equipment, but may have to extend the normal working hours of the department in order to process the additional workload.

MODEL 4 - ACCEPT ONLY EXTERNAL PROVIDER REQUESTS FOR CAT SCANS WITH TPC REIMBURSEMENT POTENTIAL WITH REDUCED WORKLOAD EXPECTATION: Possibly the best option is to do a pilot study using one type of radiologic procedure. In this case, the CAT scan may be a good candidate to start the program. This is a radiologic procedure which would only slightly increase the radiology workload. This model assumes only 50% of all CHAMPUS patients would return to the Naval Hospital for radiological services. Table 18 is the breakdown of expected TPC reimbursement for external provider requests for CAT scans.

Table 18

SUMMARY OF CHAMPUS CAT RADIOLOGICAL PROCEDURES
FY 93 DATA 01 OCT 92 TO 30 SEP 93
THIRD PARTY COLLECTIONS (TPC)

SERVICE PROVIDED	COST OF SERVICE	EST ALLOW COST	# POTENT TPC EXAMS	50% PATIENT DEMAND RADIO	# HISTOR TPC (20%)	POTENT THIRD PARTY COLLECT	POTENT THIRD PARTY ALLOW	
CAT HEAD/BRAIN WITHOUT CONTRAST	$193	$108	320	160	32	$6,176	$3,456	
CAT SCAN CHEST	$339	$133	213	106.5	21	$7,221	$2,833	
CAT SCAN ABDOMEN, PER STUDY	$169	$141	503	251.5	50	$8,501	$7,092	
CAT SCAN EXTREMITY WITHOUT CONT	$197	$89	4		2	0	$79	$36
CAT HEAD/BRAIN WITH CONTRAST	$218	$105	107	53.5	11	$2,333	$1,124	
CAT HEAD/BRAIN W/WO CONTRAST OR FOSSA AND IAM/IACS	$307	$127	120	60	12	$3,684	$1,524	
CAT SCAN EXTREMITY WITH CONTRAST	$226	$157	4		2	0	$90	$63
CAT SCAN W/WO CONTRAS	$393	$150	220	110	22	$8,646	$3,300	
			1,491	746	149	36,729	$19,427	

Contrast media $75/patient. Contrast expense 226 x $75 = $19,950

This model will predict the TPC for radiology to be billed would be about $36,729 for approximately 746 procedures. The TPC for radiology to be collected would be around $19,427 per year. There would be about 226 studies that would require an injection of contrast media. The increased contrast media expense would be about $19,950.

The net reimbursement would be about $0. At this expected reimbursement, there would be no other purpose served by doing this pilot study, but to help to predict patient demand and projected revenue for a full implementation of the TPC program for Radiology. This figure is based on the following assumptions:

1. 50% of all the patients with an external provider requests for radiology came to the Naval Hospital for service.
2. The current service mix will remain the same as FY-93 service mix.
3. There is an external demand for about 15,500 radiological procedures. 746 exams out of this 15,500 will be an CAT exam that is on the TPC for radiology allowable service for reimbursement listing. The other 14,750 external exams will be referred back into the external environment.
4. Approximately 20% of the patients seen will have a third party payor. This means 149 exams out of this 746 exams meet both criteria of being on the TPC allowable listing and the patient having a third party payor.
5. The third party payor will have a payment schedule similar to the CHAMPUS allowable schedule.
6. There will not be a significant percentage of medicare eligible patients with external provider requests for radiological services.
7. There will be a $20,000 increase in contrast costs

8. The radiology average monthly workload would be increased by:

0 radiographic procedures
0 portable procedures
0 fluoroscopic procedures
0 mammographic procedures
0 weighted special procedures
0 ultrasound procedures
62 CAT and MRI scan procedures
0 nuclear medicine procedures

Staffing model:

X1 = 3453 avg monthly radiographic procedures, includes branch medical clinics and Urology
X2 = 251 avg monthly portable procedures
X3 = 115 avg monthly fluoroscopic procedures
X4 = 157 avg monthly mammographic procedures
X5 = 12 avg monthly weighted special procedures
X6 = 500 avg monthly ultrasound procedures
X7 = 359 avg monthly CAT and MRI scan procedures
X8 = 87 avg monthly nuclear medicine procedures

Xt = 3453 + 2.682(251) + 5.495(115) + 2.511(157) + 27.328(12) + 4.185(500) + 8.203(359) + 13.186(87)

Xt = 11,664.329
Y1 = 199.9 + 0.4411Xt
Y1 = 5,345.04 required monthly man hours
work center manpower requirements = 5,345.04/160.7
work center manpower requirements = 34

Diagnostic Radiologists	*	3
Radiologic Superintendent	E-8	1
Radiologic Technician	E-7	2
Radiologic Technician	E-6	4
Radiologic Specialist	E-5	6
Radiologic Specialist	E-4	15
Medical Admin Specialist	E-4	1
Apprentice Admin Specialist	E-3	2
		33

This staffing model would suggest the Radiology Department has enough support staff to process all external and internal requests. The model suggests 3 radiologists for this workload, but the radiologists would have to read about 59,000 total exams which is about 19,600 exams per

radiologist per year. Since the recommended number of procedures per radiologist per year is 10,000 to 15,000 procedures, this exceeds the recommendation. If the fourth radiologist is maintained, the number of exams per radiologists per year is 14,750 which is within the recommendation. The Radiology staff should have enough equipment, and should not have to extend the normal working hours of the department in order to process the additional workload.

MODEL 5 - DO NOTHING (STATUS QUO): This option is always available. The hospital staffing, funding, and mission is changing rapidly. Hospital staffing and funding is likely to decrease. If the Radiology Department does nothing to seek alternate sources of revenue or to justify its current staffing, the department is most likely to be faced with decreased funding and staffing along with the rest of the hospital.

Strategic Opportunities

The Radiology Department is in a fairly good strategic position, in terms of personnel and equipment, to take advantage of the changing environment. The Radiology Department Head has worked extremely hard to offer a full service Radiology Department and to obtain adequate staffing. One of the primary functions of ancillary services such as radiology is to support the direct patient care efforts of physicians. The physicians involved in

providing direct patient are developing a hospital wide business plan. This hospital business plan should include the hospital services to be provided, the cost of these services, and the impact of these services on our beneficiary population.

The NH Charleston will face decreased staffing and decreased funding. This will be a result of the closure of the Naval Shipyard and Naval Station and the decreased number of active duty service members in the Charleston catchment area. The Lead Agent will start to develop policies which will affect the direct care and CHAMPUS health care delivery systems. The Navy will most likely start some form of capitated budgeting within the next year. In a FY-95 capitated budget, the Naval Hospital would receive a dramatically reduced budget. The Naval Hospital will seek to become a "landlord" command for the small commands being displaced by the closing of the Naval Shipyard and Naval Station. The Naval Hospital will become increasingly dependent on third party collections revenue and collecting "rent" from tenant commands to remain operational.

The Radiology Department Head feels a TPC program for Radiology will require increased staffing and equipment. There is a concern over the legal liability of returning dictated radiology reports to external health care providers. There is concern on the impact of increased

workload on the morale of department personnel. These issues are very valid and require additional research and coordination between hospital departments. These issues can be researched by a Process Action Team using Total Quality Leadership methods to provide alternative.

The Radiology Department needs to develop a business plan which is based on the hospital business plan. The Radiology Department needs to develop a mission, goals, and objectives based on the hospital mission, goals, and objectives. The Radiology Department may need to start to limit certain types of services or to increase other types of services based on a business plan analysis. The TPC program for Radiology may provide essential operational revenue for the Naval Hospital. The retiree and Air Force population in Charleston should remain constant for the next several years.

The Radiology Department must consider the types of services it will offer, the patient population, what is the demand for these services, what will be the sources of revenue, who it will offer services to, how much these services will cost, what is the optimum staffing level that both the Radiology Department and the Navy can live with, and how it will interact with external agencies. Once the Radiology Department has developed its business plan, it will need to be monitored and changed as required.

Only the Radiology Department can decide how to make a TPC program for radiology successful. The department must develop some form of staffing model to justify staffing requirements. It must also develop methods to process TPC requests and to sent diagnostic radiology results back to requesting external providers. The Radiology Department has a good opportunity to implement the TPC program for Radiology to position itself for FY-95. By implementing the TPC program for Radiology and accepting external requests for radiology procedures, the Radiology Department may be able to:

1. Maintain its workload as the active duty navy population decreases
2. Provide an alternate source of funding for a decreasing budget
3. Justify maintaining current staffing and services offered
4. Seek alternate use of CHAMPUS funds from the lead agent

Not implementing a TPC program for radiology may have the following impact:

1. The workload for the Radiology Department will decrease as the active duty population decreases
2. Funding for new programs and technologies will become increasingly difficult to obtain
3. Staffing levels will be cut to meet hospital downsizing objectives
4. CHAMPUS costs will increase as beneficiaries seek external health care providers because radiology services were eliminated due to decreased staffing and funding

The primary mission of a military hospital is to support the active duty service members. As the number of active duty service members and their dependents decrease, the primary target population will be the small remaining

percentage of active duty personnel and their dependents. The retirees and their dependents will be an increasingly important target market. A TPC program for radiology will generate very little revenue in the beginning of the program, but as the program continues the amount of revenue generated will increase.

The population in Charleston will have a choice in belonging to a Preferred Provider Organization (PPO) type network. The beneficiary will enjoy financial and access benefits by joining the PPO. The beneficiary who does not join the PPO will incur higher financial costs and limited access to the MTF. The PPO may impact on the TPC program for radiology if the beneficiaries who elect to use external providers do not have access to the MTF services.

A TPC program for Radiology will increase the workload for the Radiology Department no matter which model is used. The Radiology Department will face some increased costs in terms of consumable materials such as x-ray film, contrast media, and wear and tear on equipment. If the employees do not understand the benefits of the TPC program, the increased workload can have a negative impact on employee morale. The beneficiaries may not understand the program either and may generate some negative publicity for the Naval Hospital if the program is not properly explained and marketed.

Internal and External Constituents

The Naval Hospital has an obligation to support the Radiology Department in terms of funding, staffing, equipment, and leadership. The hospital has the obligation to provide medical care to active duty service members. It also has the obligation to provide medical care to dependents and retirees on a space available basis. The hospital must meet the demands placed upon it by the Lead Agent, the HSO, BUMED, DoD Health Affairs, Responsible Line Commander, Congress and the President. The hospital must stay within its direct care budget. The beneficiary population and the media can place pressure on the hospital and its external stakeholders to make changes within the hospital health care delivery system.

The Radiology Department has an obligation to support the hospital mission and to provide ancillary support to authorized providers. The Radiology Department is obligated to properly report to higher authority and to stay within its operating budget. The department is obligated to support its employees and to provide quality health care services to its beneficiary population.

CHAPTER IV

DISCUSSION

Market Strategies

The expected reimbursement of $30,000 for a fully implemented TPC program for Radiology may not justify the cost of starting the program and the stress placed on the department personnel by increasing the workload. The Radiology Department should implement a pilot study for the TPC program for Radiology. The best candidate would most likely be CAT scans. This pilot study would have the least impact on workload, equipment, and personnel, but would have a net reimbursement of $0 due to contrast media costs. The data collected could be used to predict the workload, equipment, cost, and personnel resources required to fully implement a TPC program for Radiology.

There are some limits on the resources in terms of equipment and personnel to increase the CAT, ultrasound, and mammography workload in the Radiology Department. Personnel should be cross trained to help support these areas. Experienced active duty radiology personnel should be trained early as possible in different technologies when

they are first reporting for duty. It will take time for a technician to become fully proficient in a technology, but this may provide two or three years of a stable technician pool. The civilian diagnostic radiologic technician positions may be able to be switched to special technology positions such as CAT or ultrasound technicians. The possibility of extending normal working hours as workload demands is a consideration.

The Radiology Department should coordinate with the Alternate Health Care Department to assist with patient health benefits education. The Public Affairs Officer will be able to help with the marketing campaign and to obtain advertising sources. Information about the program can be passed to the beneficiary population by using the military papers such as The Bowhook and the civilian newspapers such as The Post and Courier. The TPC office will be able to provide program assistance and management control reports to track the program success.

PATs should be able to recommend suggested courses of action and possible alternatives as problems occur within the program. Patient surveys and employee feedback should provide some measure of program understanding and impact.

The pilot program should be ran for at least 6 months to gather data and to identify problems. At this point, the data can be analyzed and a decision can be made to expand, maintain, or cancel the program.

The other alternative is to implement model 3 which is to accept only external provider requests for radiological procedures with TPC reimbursement potential with a reduced workload expectation. This model will cause more stress on the Radiology delivery system than the pilot program option, but will offer the maximum TPC reimbursement with the least increase in radiology workload. This model poses a greater potential for a public relations problem. If the Naval Hospital accepts external radiology requests which have TPC reimbursement potential, but rejects external radiology requests which have no TPC potential may cause a negative impression with the beneficiary population. The best example of this situation would be when the same patient presents with an external radiology request for a upper G.I study and a chest x-ray. Under this model, the patient would be scheduled for the upper G.I. but would be instructed the Naval Hospital would not perform the chest x-ray and the patient would have to seek a CHAMPUS source for the chest x-ray. This model would require very careful staff training and patient education with a on-going program of marketing patient benefits. The calculated TPC reimbursement for model one (100% recapture of the CHAMPUS radiology services) is contained in Appendix (I). This chart contains the TPC calculated cost of service, the estimated CHAMPUS allowable, the number of potential TPC examinations, the historical number of beneficiaries with a

TPP, the potential TPC collections if all TPPs paid the cost of service and the potential TPC if the TPPs paid close to the CHAMPUS allowable. Appendix (J) contains the same information, but assumes the Radiology Department will reclaim only 50% of the radiology CHAMPUS demand.

Table 19 contains the breakdown of the number of radiology CHAMPUS studies performed, the total amount billed and the total amount allowed. This table represents most of the possible increase in workload for the Radiology Department if a TPC program for Radiology was implemented.

Table 19

MANAGED CARE QUERY APPLICATION (MCQA)
SUMMARY OF CHAMPUS RADIOLOGICAL PROCEDURES NH CHARLESTON CATCHMENT AREA OUTPATIENT ONLY
FY-93 DATA 01 OCT 92 TO 30 SEP 93

EXAM	NUMBER EXAMS PERFORMED	TOTAL AMOUNT BILLED	AVERAGE AMOUNT BILLED	TOTAL AMOUNT ALLOWED	AVERAGE AMOUNT ALLOWED
GI TRACT	681	$37,483.00	$55.04	$27,281.00	$40.06
THALLIUM	95	$13,615.00	$143.32	$12,580.00	$132.42
NUC MED	413	$41,679.00	$100.92	$30,450.00	$73.73
CT	1,518	$230,878.20	$152.09	$167,387.00	$110.27
MAMMOGRAPHY	754	$25,222.00	$33.45	$23,440.00	$31.09
ULTRASOUND	1,491	$136,242.00	$91.38	$89,178.00	$59.81
MRI	376	$276,275.00	$734.77	$136,974.00	$364.29
GENERAL X-RAY	27,895	$2,580,582.00	$92.51	$2,287,685.00	$82.01
CARDIAC/ARTERIAL/VENOUS	73	$13,370.00	$183.15	$11,524.00	$157.86
RADIATION THERAPY	1,763	$240,903.00	$136.64	$164,043.00	$93.05
	35,059	$3,596,249.20		$2,950,542.00	

Marketing Action Plan

The Radiology Department should consider all its options and select a TPC program which is consistent with its mission. This process would be good for a PAT. The PAT should be composed of members of Radiology, TPC, comptroller, Alternate Health Care, Market Analysis, direct patient care, and Management Information Department. The

Radiology Department should coordinate developing its business plan with the hospital business plan.

The PAT team should have its recommendations prepared by the start of FY-95. By this time the hospital business plan should be fairly well developed and the Radiology Department will have an indication of the radiological services required by the hospital and the beneficiary population.

The administrative start up costs of a TPC program for Radiology should be minimal since the TPC office is well established for outpatient, inpatient and pharmacy TPC. The Radiology Department will incur some start up costs in additional time, contrast media and x-ray film. As long as current radiology staffing and equipment is used, this cost should be minimal. If it is determined additional personnel are required to be hired for a TPC program for Radiology, then the program will not be cost effective. The alternatives are listed in order of preference with the TPC program is seeking a net gain on reimbursement.

Model 4 - The pilot program accepting only external CAT scan requests with current staffing and equipment; should generate a net gain on reimbursement of $0.

Model 3 - Performing only the radiological exams with TPC reimbursement potential with current staffing and equipment; should generate a net gain on reimbursement of $30,000.

Model 5 - Doing nothing with current staff and equipment; should generate no reimbursement.

Model 2 - Accepting all external civilian radiological requests with expecting only 50% response would require the hiring of one contract radiologist and possibly some additional support staff for ultrasound, CAT and mammography at a cost exceeding $400,000. With an expected TPC reimbursement of $30,000, this would cause a net loss on reimbursement of about $370,000.

Model 1 - Accepting all external civilian radiological requests with expecting a 100% response would require the hiring of two contract radiologists and possibly some additional support staff for ultrasound, CAT, and mammography at a cost exceeding $800,00. With an expected TPC reimbursement of 60,00, this would cause a net loss on reimbursement of $740,00. The total CHAMPUS allowable for FY-93 CHAMPUS radiological studies was $2,950,542. It is possible to seek alternate use of CHAMPUS funds to use CHAMPUS money to hire contract radiologists and additional support personnel to recapture some CHAMPUS expenditures. This is an issue which would be discussed with the Lead Agent.

Controls

The TPC office and the Comptroller would provide financial oversight to the TPC program for Radiology. The Radiology Department would provide management and technical oversight to the program.

This project experienced control problems in the following areas:

- Standard Radiology manpower staffing model
- Radiology workload reporting
- Matching CPT codes with TPC authorized Radiology studies

There was no easily identifiable Navy manpower staffing model for Radiology. An Air Force staffing model was used, but there may be significant differences in the duties expected between Navy Radiology Personnel and Air Force Radiology Personnel. If the standard of 15,000 radiology procedures per Radiologist per year is used, then the required Radiologist staffing as it related to workload was consistently underestimated by the Air Force model. This may suggest the Air Force model was underestimating the required Radiology support staff as related to workload.

There are multiple information systems which record the Radiology workload. These systems include DMIS, CHCS, and manual accounting methods. This causes discrepancies between the reported workload, and may allow departments to artificially increase or decrease workload. A standard reporting system using one CPT code per one patient would help to eliminate variations between reporting systems and

may help to standardize the data for use in departmental planning.

The documentation authorizing the Radiology studies which could be used for TPC reimbursement did not indicate the CPT code for each study. This may leave room for variation in billing the TPP and may cause delays in collections. It would be helpful if the authorizing documentation would also include the corresponding CPT codes.

CHAPTER V

CONCLUSION AND RECOMMENDATIONS

With a expected reimbursement of only $30,000, the TPC program for Radiology may not be cost effective to implement under the way the program is currently structured. The NH Charleston may be required to implement some form of TPC program for Radiology to provide needed operational funding. The TPC program for Radiology has many issues which need to be looked at prior to implementation.

It is very important for the Radiology Department to "buy into" a TPC program for Radiology. If the Radiology Department does not feel the program will beneficial to them, it is unlikely the program will be successful. The Radiology Department should coordinate a PAT to study the issues and make recommendations. It is my recommendation to implement a pilot study using external provider requests for CAT scans. If the program is found to be feasible, it should be expanded as much as staffing and equipment allow. Asking the Lead Agent for alternate use of CHAMPUS funds should be explored to provide additional staffing.

According to the Naval Hospital Legal Office, there is little legal liability as long as the Naval Hospital makes a responsible effort to send a dedicated report back to the referring provider. The logistics of returning dictated external provider reports is a matter of developing a provider database and mailing label generation program. There are many off the shelf software packages to perform these functions. There may be greater legal liability when a well meaning internal provider takes an external provider request and rewrites it with the internal provider's signature. This internal provider now becomes legally responsible to follow up the patient.

Appendix (K) contains a sample TPC form which could be modified to meet the needs of the Radiology Department.

DoD may wish to revise the TPC program for Radiology to include all the radiological procedures and not just the high cost procedures. A further analysis should be conducted to see if an increased volume of TPC procedures would increase the TPC reimbursement rate.

A TPC program for Radiology provides a possible source of operational revenue for the hospital, but may also have some negative impact in terms of staffing and equipment usage.

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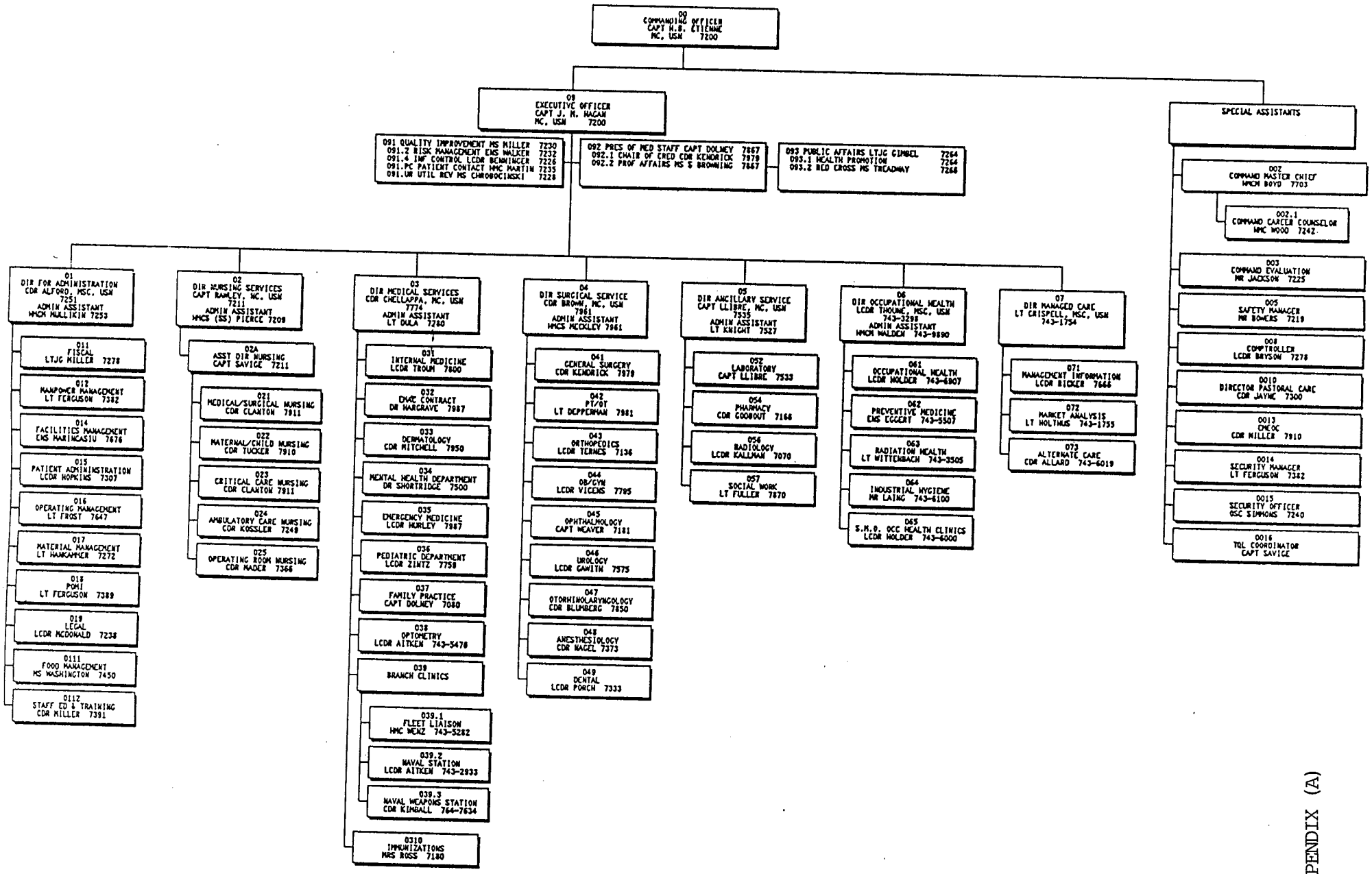


APPENDIX (A)

NAVAL HOSPITAL CHARLESTON CATCHMENT AREA DEMOGRAPHIC DATA

Date Prepared: 05 February 1994

ACTUAL DATA FOR 30 SEPTEMBER 1992

Service Affiliation	Active Duty Sponsors	Active Duty Dependents	Retired Sponsors	Retired Dependents	Survivor's Dependents	Service Total	Percent of Grand Total
Army	343	526	1,383	1,823	489	4,564	4.60
Air Force	4,115	6,337	3,494	5,068	639	19,653	19.81
Marine Corps	367	374	327	502	109	1,679	1.69
Navy	21,440	33,078	6,257	10,291	1,199	72,265	72.84
Other	239	383	176	214	39	1,051	1.06
Totals	26,504	40,698	11,637	17,898	2,475	99,212	100.00

Data Source: Distribution of Military Population by Type for Charleston SC
as of September 30 1992 -- Provided by Defense Manpower Data Center

ACTUAL DATA FOR 30 SEPTEMBER 1993

Service Affiliation	Active Duty Sponsors	Active Duty Dependents	Retired Sponsors	Retired Dependents	Survivor's Dependents	Service Total	Percent of Grand Total	FY 92 to FY 93 Amount Change
Army	243	266	1,519	1,887	507	4,422	4.92	(142)
Air Force	4,424	6,742	3,728	5,165	703	20,762	23.10	1,109
Marine Corps	397	347	357	499	117	1,717	1.91	38
Navy	16,315	26,626	6,785	10,814	1,225	61,765	68.71	(10,500)
Other	315	474	166	219	47	1,221	1.36	170
Totals	21,694	34,455	12,555	18,584	2,599	89,887	100.00	(9,325)

Data Source: Distribution of Military Population by Type for Charleston SC
as of September 30 1993 -- Provided by Defense Manpower Data Center

PROJECTED DATA FOR FISCAL YEAR 1996 (POST BRAC)

Service Affiliation	Active Duty Sponsors	Active Duty Dependents	Retired Sponsors	Retired Dependents	Medicare	Service Total	Percent of Grand Total	FY 92 to FY 96 Amount Change
Army	1,348	1,511	1,450	1,800	862	6,971	11.32	2,407
Air Force	4,000	6,582	3,653	5,108	1,302	20,645	33.51	992
Marine Corps	355	535	334	592	124	1,940	3.15	261
Navy	5,000	6,869	6,393	9,940	2,650	30,852	50.08	(41,413)
Other	297	448	170	219	62	1,196	1.94	145
Totals	11,000	15,945	12,000	17,659	5,000	61,604	100.00	(37,608)

Data Source: DMIS/RAPS

APPENDIX (B)

NAVAL HOSPITAL CHARLESTON CATCHMENT AREA DEMOGRAPHIC DATA

Date Prepared: 03 March 1994

ACTUAL DATA FOR 01 FEBRUARY 1994

Active Duty Sponsors

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	1	0	0	85	55	81	0	222
Air Force	1	0	0	881	2,212	1,330	0	4,424
Marine Corps	0	0	0	266	108	26	0	400
Navy	0	0	0	3,831	8,145	4,171	0	16,147
Other	0	0	0	72	144	92	0	308
Totals	2	0	0	5,135	10,664	5,700	0	21,501
% of Total	0%	0%	0%	24%	50%	27%	0%	100%

Active Duty Dependents

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	28	97	19	33	32	49	1	259
Air Force	825	2,397	450	738	1,406	926	6	6,748
Marine Corps	62	98	14	81	71	25	0	351
Navy	3,760	9,753	1,527	2,968	5,218	3,357	39	26,622
Other	61	168	18	54	99	72	1	473
Totals	4,736	12,513	2,028	3,874	6,826	4,429	47	34,453
% of Total	14%	36%	6%	11%	20%	13%	0%	100%

Retired Sponsors

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	0	0	0	3	21	838	607	1,469
Air Force	0	0	0	1	19	2,830	863	3,713
Marine Corps	0	0	0	1	5	232	99	337
Navy	0	0	0	1	69	5,025	1,627	6,722
Other	0	0	0	0	1	103	59	163
Totals	0	0	0	6	115	9,028	3,255	12,404
% of Total	0%	0%	0%	0%	1%	73%	26%	100%

Retired Dependents

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	12	204	134	338	40	921	661	2,310
Air Force	19	455	345	1,015	82	3,041	891	5,848
Marine Corps	6	66	43	99	10	265	103	592
Navy	80	1,284	939	2,423	193	5,389	1,605	11,913
Other	2	12	18	41	2	117	62	254
Totals	119	2,021	1,479	3,916	327	9,733	3,322	20,917
% of Total	1%	10%	7%	19%	2%	47%	16%	100%

Total Population

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	41	301	153	459	148	1,889	1,269	4,260
Air Force	845	2,852	795	2,635	3,719	8,127	1,760	20,733
Marine Corps	68	164	57	447	194	548	202	1,680
Navy	3,840	11,037	2,466	9,223	13,625	17,942	3,271	61,404
Other	63	180	36	167	246	384	122	1,198
Totals	4,857	14,534	3,507	12,931	17,932	28,890	6,624	89,275
% of Total	5%	16%	4%	14%	20%	32%	7%	100%

Data Source: Defense Manpower Data Center

APPENDIX (B)

NAVAL HOSPITAL CHARLESTON CATCHMENT AREA DEMOGRAPHIC DATA

Date Prepared: 03 March 1994

PROJECTED DATA FOR FISCAL YEAR 1996 (POST BRAC)

Active Duty Sponsors

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	0	0	0	522	334	492	0	1,348
Air Force	0	0	0	797	2,000	1,203	0	4,000
Marine Corps	0	0	0	236	96	23	0	355
Navy	0	0	0	1,186	2,522	1,292	0	5,000
Other	0	0	0	69	139	89	0	297
Totals	0	0	0	2,811	5,091	3,098	0	11,000
% of Total	0%	0%	0%	26%	46%	28%	0%	100%

Active Duty Dependents

Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
163	566	111	193	187	286	6	1,511
805	2,338	439	720	1,371	903	6	6,582
95	149	21	123	108	38	0	535
970	2,516	394	766	1,346	866	10	6,869
58	159	17	51	94	68	1	448
2,090	5,729	982	1,853	3,106	2,162	23	15,945
13%	36%	6%	12%	19%	14%	0%	100%

Retired Sponsors

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	0	0	0	4	27	1,073	777	1,881
Air Force	0	0	0	1	22	3,280	1,000	4,304
Marine Corps	0	0	0	1	6	273	116	396
Navy	0	0	0	1	79	5,770	1,868	7,718
Other	0	0	0	0	1	127	73	201
Totals	0	0	0	7	135	10,523	3,835	14,500
% of Total	0%	0%	0%	0%	1%	73%	26%	100%

Retired Dependents

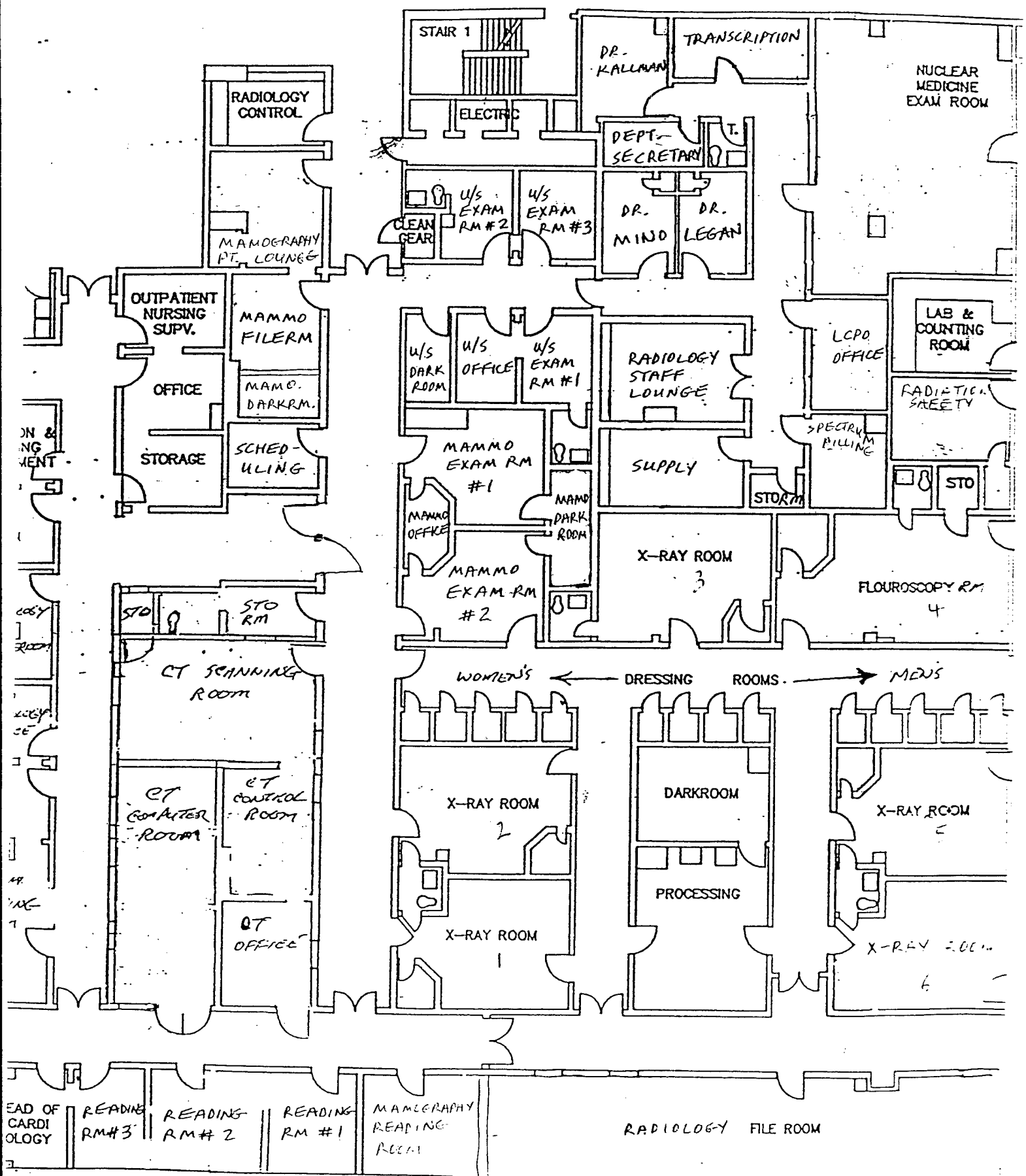
Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
12	197	129	326	39	890	638	2,231
19	448	340	1,000	81	2,995	877	5,759
7	73	48	109	11	293	114	654
76	1,214	888	2,291	183	5,096	1,518	11,265
2	12	18	40	2	115	61	250
115	1,944	1,422	3,767	315	9,388	3,208	20,159
1%	10%	7%	19%	2%	47%	16%	100%

Total Population

Service Affiliation	Less than 4 years	4–13 years	14–16 years	17–23 years	24–33 years	34–64 years	65+ years	Total
Army	175	763	240	1,045	587	2,741	1,421	6,972
Air Force	824	2,786	779	2,518	3,474	8,381	1,883	20,645
Marine Corps	102	222	69	469	221	627	230	1,940
Navy	1,046	3,730	1,282	4,244	4,130	13,024	3,396	30,852
Other	60	171	35	160	236	399	135	1,196
Totals	2,207	7,672	2,405	8,436	8,648	25,172	7,065	61,605
% of Total	4%	12%	4%	14%	14%	41%	11%	100%

APPENDIX (B)

PROJECTED



APPENDIX (C)

NAVAL HOSPITAL CHARLESTON
26-JAN-94

OUTPATIENT TPCP SUMMARY BY CLINIC
(27-APR-93 to 30-SEP-93)

MEPRS	MEPRS Description	# Billed	Billed	%	Collected	%	Write-Off	%	Receivable	%
BAAA	INTERNAL MEDICINE CLINIC NH	431	$41,653.15	7.3	$15,949.91	11.1	$10,116.09	6.8	$15,892.15	5.7
BAKA	NEUROLOGY CLINIC NH	27	$2,700.00	0.5	$1,230.00	0.9	$570.00	0.4	$900.00	0.3
BAPA	DERMATOLOGY CLINIC NH	236	$23,600.00	4.2	$6,365.68	4.4	$6,944.32	4.7	$10,590.00	3.8
BBAA	GENERAL SURGERY CLINIC NH	342	$34,100.00	6.0	$8,089.96	5.6	$9,601.04	6.5	$16,509.00	6.0
BBDA	OPTHALMOLOGY CLINIC NH	300	$30,000.00	5.3	$11,125.99	7.7	$8,474.01	5.7	$10,500.00	3.8
BBFA	OTORHINOLARYNGOLOGY CLINIC NH	120	$12,000.00	2.1	$4,884.25	3.4	$2,515.75	1.7	$4,700.00	1.7
BBIA	UROLOGY CLINIC NH	222	$22,057.00	3.9	$6,344.06	4.4	$6,750.94	4.6	$8,962.00	3.2
BCBA	OB/GYN CLINIC NH	111	$11,049.00	1.9	$4,089.42	2.8	$3,500.58	2.4	$3,459.00	1.2
BDAA	PEDIATRIC CLINIC NH	21	$2,100.00	0.4	$749.00	0.5	$751.00	0.5	$600.00	0.2
BEAA	ORTHOPEDIC CLINIC NH	118	$11,749.00	2.1	$4,011.44	2.8	$2,383.56	1.6	$5,354.00	1.9
BFAA	PSYCHIATRY CLINIC NH	92	$8,692.60	1.5	$1,653.00	1.1	$4,517.00	3.1	$2,592.60	0.9
BFBA	PSYCHOLOGY/PSYCHIATRY	66	$6,290.00	1.1	$1,169.00	0.8	$2,727.00	1.8	$2,394.00	0.9
BFFA	SUBSTANCE ABUSE CLINIC NH	9	$900.00	0.2	$182.50	0.1	$17.50	0.0	$700.00	0.3
BGAA	FAMILY PRACTICE CLINIC NH	806	$80,368.00	14.2	$22,337.98	15.5	$24,000.27	16.2	$34,129.75	12.3
BGAZ	FAMILY PRACTICE NAVAL WEAPON S	109	$10,440.00	1.8	$3,112.30	2.2	$3,987.70	2.7	$3,340.00	1.2
BHAE	AMBULATORY CARE CLINIC NH	563	$56,300.00	9.9	$14,092.71	9.8	$11,159.94	7.5	$31,300.00	11.3
BHAZ	PRIMARY CARE CLINIC NAVAL WEAP	2	$190.00	0.0	$76.00	0.1	$19.00	0.0	$95.00	0.0
BHCY	OPTOMETRY NAVAL STATION	2	$200.00	0.0	$129.25	0.1	$70.75	0.0	$0.00	0.0
BHHA	NAVCARE NH	1,337	$131,943.00	23.2	$22,875.45	15.9	$37,667.55	25.4	$71,500.00	25.8
BIAA	EMERGENCY MEDICAL CLINIC NH	247	$25,545.00	4.5	$8,048.00	5.6	$9,797.00	6.6	$7,900.00	2.9
CAAA	ORAL SURGERY NH	33	$3,116.00	0.5	$452.25	0.3	$547.75	0.4	$2,116.00	0.8
DAAA	PHARMACY NH	81	$10,206.00	1.8	$528.15	0.4	$119.85	0.1	$9,558.00	3.5
PAAA	PURCHASED HEALTH NH	82	$42,263.64	7.4	$6,506.01	4.5	$1,808.37	1.2	$33,949.26	12.3
PAAB	WORKER'S COMP	1	$100.00	0.0	$100.00	0.1			$0.00	0.0
		5,358	$567,562.39		$144,102.31		$148,044.97		$277,040.76	

APPENDIX (D)

OUTPATIENT VISIT SUMMARY BY CLINIC
(01-OCT-93 to 25-FEB-94)

MEPRS	MEPRS DESCRIPTION	#	BILLED	%	#	COLLECTED	%	#	WRITE-OFFS	%	RECEIVABLE	%
BAAA	INTERNAL MEDICINE CLINIC NH	379	$35,534.75	4.6	299	$20,779.64	7.2	699	$13,415.96	4.7	$17,409.30	3.7
BAKA	NEUROLOGY CLINIC NH	22	$2,183.00	0.3	20	$1,669.85	0.6	39	$418.15	0.1	$995.00	0.2
BAPA	DERMATOLOGY CLINIC NH	395	$39,161.00	5.1	243	$16,095.01	5.6	653	$12,252.99	4.3	$21,463.00	4.5
BBAA	GENERAL SURGERY CLINIC NH	511	$50,315.00	6.6	384	$24,727.55	8.6	904	$19,723.60	7.0	$22,806.60	4.8
BBDA	OPTHALMOLOGY CLINIC NH	290	$28,700.00	3.7	219	$14,440.06	5.0	503	$9,658.94	3.4	$15,042.00	3.2
BBFA	OTORHINOLARYNGOLOGY CLINIC NH	173	$17,134.00	2.2	116	$8,131.61	2.8	307	$6,081.39	2.1	$7,522.00	1.6
BBIA	UROLOGY CLINIC NH	263	$25,901.15	3.4	164	$10,090.75	3.5	465	$11,160.40	3.9	$13,593.00	2.9
BCBA	OB/GYN CLINIC NH	194	$19,073.00	2.5	29	$1,898.36	0.7	232	$1,912.64	0.7	$18,721.00	4.0
BDAA	PEDIATRIC CLINIC NH	34	$3,216.00	0.4	12	$710.60	0.2	49	$746.40	0.3	$2,359.00	0.5
BEAA	ORTHOPEDIC CLINIC NH	160	$15,804.00	2.1	103	$7,715.65	2.7	266	$3,737.60	1.3	$9,748.00	2.1
BFAA	PSYCHIATRY CLINIC NH	42	$3,846.15	0.5	29	$1,209.68	0.4	90	$3,007.07	1.1	$2,294.00	0.5
BFBA	PSYCHOLOGY/PSYCHIATRY	112	$10,197.00	1.3	55	$2,245.90	0.8	189	$4,832.10	1.7	$5,414.00	1.1
BFDA	MENTAL HEALTH NH	3	$263.15	0.0				5	$168.15	0.1	$95.00	0.0
BFFA	SUBSTANCE ABUSE CLINIC NH	16	$1,584.00	0.2	14	$811.60	0.3	32	$778.40	0.3	$694.00	0.1
BGAA	FAMILY PRACTICE CLINIC NH	937	$92,234.60	12.0	540	$33,900.58	11.7	1,559	$33,622.04	11.9	$59,140.93	12.5
BGAZ	FAMILY PRACTICE NAVAL WEAPON S	405	$36,833.55	4.8	190	$10,726.05	3.7	654	$13,833.95	4.9	$15,168.55	3.2
BHAE	AMBULATORY CARE CLINIC NH	935	$92,601.00	12.1	422	$25,919.35	9.0	1,420	$24,955.65	8.8	$73,026.00	15.4
BHAZ	PRIMARY CARE CLINIC NAVAL WEAP	3	$219.45	0.0	1	$54.87	0.0	4	$18.28	0.0	$241.30	0.1
BHCA	OPTOMETRY CLINIC NH	1	$77.00	0.0				1	$0.00	0.0	$77.00	0.0
BHCY	OPTOMETRY NAVAL STATION	7	$673.00	0.1	1	$77.00	0.0	7	$0.00	0.0	$497.00	0.1
BHHA	NAVCARE NH	978	$81,995.89	10.7	796	$42,342.95	14.7	2,185	$69,411.69	24.5	$42,201.15	8.9
BHHE	NAVCARE NH	1,597	$109,928.20	14.3	476	$22,821.61	7.9	2,190	$21,200.64	7.5	$64,804.15	13.7
BIAA	EMERGENCY MEDICAL CLINIC NH	413	$40,723.00	5.3	145	$9,862.02	3.4	580	$8,692.98	3.1	$30,068.00	6.3
CAAA	ORAL SURGERY NH	27	$2,679.00	0.3	19	$1,235.35	0.4	54	$1,451.65	0.5	$2,108.00	0.4
DAAA	PHARMACY NH	135	$19,018.37	2.5	46	$5,052.60	1.7	197	$5,254.40	1.9	$18,199.52	3.8
FCGA	CIVILIAN HUMANITARIAN	5	$453.00	0.1				5	$0.00	0.0	$453.00	0.1
PAAA	PURCHASED HEALTH NH	113	$34,775.48	4.5	79	$24,405.62	8.4	192	$17,174.65	6.1	$28,718.82	6.1
PAAB	WORKER'S COMP	26	$2,554.00	0.3	20	$1,858.00	0.6	33	$196.00	0.1	$400.00	0.1
PAAC	CHRONIC PAIN CLINIC	4	$397.00	0.1	1	$100.00	0.0	4	$0.00	0.0	$297.00	0.1
TOTALS:		8,180	$768,074.74		4,423	$288,882.26		13,518	$283,705.72		$473,556.52	

APPENDIX (D)

FILE NAME: TPCSMRY2

MED 142-B

THIRD PARTY COLLECTIONS: SUMMARY REPORT 2nd QTR-FY 93

NAVAL MTFs	CUMULATIVE BILLINGS	FY 93 COLLECTIONS	FY 91/92 COLLECTIONS	TOTAL COLLECTIONS
BEAUFORT	403,275.30	92,442.52	54,574.74	147,017.26
BREMERTON	465,377.00	71,579.66	62,419.89	133,999.55
CAMP LEJEUNE	553,410.00	148,603.47	157,096.40	305,599.87
CAMP PENDLETON	334,373.00	34,756.27	82,798.68	117,554.95
* CHARLESTON	2,270,758.70	* 807,495.50	253,973.48	1,061,468.98
CHERRY POINT	80,416.00	28,329.36	12,825.75	41,155.11
CORPUS CHRISTI	175,031.80	49,705.08	65,690.47	115,395.55
GREAT LAKES	522,716.00	85,934.15	125,694.48	211,628.63
GROTON	361,910.80	93,039.26	57,801.00	150,840.26
GUAM	6,951.00	0.00	1,095.70	1,095.70
JACKSONVILLE	1,112,514.45	281,290.42	228,678.00	509,968.42
KEFLAVIK	8,541.00	6,570.00	0.00	6,570.00
LEMOORE	12,658.00	1,672.91	11,052.50	12,725.41
LONGBEACH	85,509.00	23,069.87	21,859.12	44,928.99
MILLINGTON	158,797.00	55,535.54	23,170.82	78,706.36
N.N.M.C.	4,100,060.00	978,206.07	977,146.28	1,955,352.35
NEWPORT	31,738.00	0.00	0.00	0.00
OAKLAND	1,601,206.25	134,357.79	373,545.00	507,902.79
OKINAWA	0.00	0.00	0.00	0.00
ORLANDO	790,341.80	231,011.50	125,990.08	357,001.58
PAX RIVER	24,666.00	6,368.18	21,618.78	27,876.96
PENSACOLA	1,225,859.00	231,473.06	161,326.44	392,799.50
PORTSMOUTH	3,754,824.75	655,263.20	513,974.40	1,169,237.60
SAN DIEGO	2,950,689.00	627,034.83	749,772.40	1,376,807.23
TWENTY NINE PALMS	24,337.00	5,083.74	12,170.05	17,253.79
TOTALS	$21,051,061.85	$4,648,712.38	$4,094,174.46	$8,742,886.84

APPENDIX (E)

RADIOLOGY WORKLOAD

	1993 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	1994 JAN	FEB	MAR	APR
CT	192	212	204	197	204	239	191	211	167	222	202	187	187	214	216	207
MRI	78	111	105	89	118	146	119	103	101	94	120	92	60	111	97	106
ULTRASOUND	281	346	326	345	347	339	303	402	359	327	387	384	507	519	608	559
IVP/CYSTO/VCUG	31	51	35	33	21	28	70	75	72	102	76	59	42	50	53	71
NUCMED	81	98	81	83	97	106	83	81	70	81	78	61	66	82	72	71
MAMMO	105	174	163	178	206	181	175	172	128	167	246	221	261	247	292	241
FLUORO	83	128	149	135	117	123	116	119	100	95	94	72	76	77	136	130
PLAIN FILMS	3153	2989	2918	3189	2693	2535	2177	2345	2452	2478	2378	2396	3595	3228	2865	2361
PORTABLES	328	@45	324	326	230	384	171	176	184	281	372	207	299	237	295	236
UROLOGY	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	60	50	54	65	75	68
CLINICS									@700	685	728	701	508	746	693	588
TOTAL	4392	4214	4365	4635	4039	4141	3465	3744	4393	4592	4741	4430	5655	5593	5402	4638

APPENDIX (F)

RADIOLOGY WORKLOAD

	1992 AUG	SEP	OCT	NOV	DEC	1993 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
CT	166	167	172	203	176	192	212	204	197	204	239	191	211	167	222	202	
MRI	63	49	64	81	84	78	111	105	89	118	146	119	103	101	94	120	
ULTRASOUND	319	349	344	373	285	281	346	326	345	347	339	303	402	359	327	387	
IVP/CYSTO/VCUG	68	63	32	36	33	31	51	35	33	21	28	70	75	72	102	76	
NUCMED	87	90	80	99	84	81	98	81	83	97	106	83	81	70	81	78	
MAMMO	170	140	132	174	100	105	174	163	178	206	181	175	172	128	167	246	
FLUORO	105	118	132	100	76	83	128	149	135	117	123	116	119	100	95	94	
PLAIN FILMS	2587	2770	2575	2933	2357	3153	2989	2918	3189	2693	2535	2177	2345	2452	2478	2378	
PORTABLES	@300	@300	295	@300	245	328	@45	324	326	230	384	171	176	184	281	372	
UROLOGY	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	@60	60	
CLINICS														@700	685	728	
TOTAL	3925	4106	3886	4359	3500	4392	4214	4365	4635	4039	4141	3465	3744	4393	4592	4741	

APPENDIX (F)

SUMMARY OF RADIOLOGICAL PROCEDURES OUTPATIENT ONLY
FY 93 DATA 01 OCT 92 TO 30 SEP 93

NOTE: THIS DATA REPRESENTS ALL OUTPATIENT RADIOLOGICAL PROCEDURES REPORTED TO DATE FOR FY 93. ADDITIONAL PROCEDURES FOR THIS FY MAY NOT HAVE BEEN REPORTED YET.

NUMBER OF EXAMS PERFORMED FY 93

EXAM	CHAMPUS DATABASE	SUPPLEMNT MEDICINE DATABASE	INPATIENT & OUTPATIENT RADIOLOGY	NAVCARE	TOTAL EXAMS
GI TRACT	681	8	1,380	0	2,069
THALLIUM	95	2	N/A	0	97
NUC MED	413	32	1,044	0	1,489
CT	1,518	19	2,364	0	3,901
MAMMOGRAPHY	754	479	1,884	2,037	5,154
ULTRASOUND	1,491	164	6,000	0	7,655
MRI	376	1,159	CONTRACT	0	1,535
GENERAL X-RAY	27,895	27	44,448	2,479	74,849
CARDIAC/ARTERIAL/VENOUS	73	58	0	0	131
RADIATION THERAPY	1,763	67	0	0	1,830
	35,059	2,015	57,120	4,516	98,710

APPENDIX (F)

MANAGED CARE QUERY APPLICATION (MCQA)
SUMMARY OF CHAMPUS RADIOLOGICAL PROCEDURES - OUTPATIENT ONLY
FY-93 DATA 01 OCT 92 TO 30 SEP 93

CPT CODE	PROCEDURE	NUMBER OF SERVICES	TOTAL AMOUNT BILLED	AVG AMT BILLED	TOTAL AMOUNT ALLOWED	AVG AMT ALLOWED
70015	CISTERNOGRAPHY	1	157.00	157.00	58.00	58.00
70030	FOREIGN OBJ EYE	4	390.00	97.50	248.00	62.00
70100	MANDIBLE < 4 VW	7	70.00	10.00	70.00	10.00
70110	MANDIBLE >= 4 VW	15	380.00	25.33	222.00	14.80
70130	MASTOIDS >= 3 VIEWS	3	65.00	21.67	53.00	17.67
70140	FACIAL < 3 VWS	5	235.00	47.00	89.00	17.80
70150	FACIAL >= 3 VWS	64	1697.00	26.52	1096.00	17.13
70160	NASAL	72	1074.00	14.92	758.00	10.53
70200	OPTIC FORAMINA >= 4 VWS	36	844.00	23.44	641.00	17.81
70210	SINUSES,PARANASAL < 3 VW	304	6944.00	22.84	5776.00	19.00
70220	SINUSES >= 4 VWS	373	13556.00	36.34	8121.00	21.77
70240	SELLA TURCICA	3	71.00	23.67	63.00	21.00
70250	SKULL < 4 VW	89	2709.00	30.44	1412.00	15.87
70260	SKULL >= 4 VWS	26	1087.00	41.81	625.00	24.04
70300	TEETH, SINGLE VW	1	12.00	12.00	12.00	12.00
70320	TEETH, FULL MOUTH	14	569.00	40.64	525.00	37.50
70330	TMJ BILAT	8	838.00	104.75	344.00	43.00
70332	ARTHROGRAPHY TMJ	5	300.00	60.00	246.00	49.20
70350	CEPHALOGRAM	1	85.00	85.00	30.00	30.00
70355	ORTHOPANTOGRAM	19	923.00	48.58	617.00	32.47
70360	NECK, SOFT TISSUE	60	1097.00	18.28	608.00	10.13
70370	PHARYNX	11	1575.00	143.18	209.00	19.00
70390	SIALOGRAPHY	1	60.00	60.00	40.00	40.00
71010	CHEST PA	1281	28292.00	22.09	14579.00	11.38
71020	CHEST, TWO VIEWS	3870	87542.00	22.62	57426.00	14.84
71021	CHEST APICAL LORDOTIC	6	152.00	25.33	114.00	19.00
71022	CHEST, AP, LAT, OBLIQUE	4	84.00	21.00	67.00	16.75
71030	CHEST >= 4 VW	6	187.00	31.17	118.00	19.67
71023	CHEST, 2 VWS WITH FLUOROSCOPY	1	47.00	47.00	20.00	20.00
71034	CHEST W FLUOROSCOPY	3	91.00	30.33	69.00	23.00
71035	CHEST SPECIAL VW	7	111.00	15.86	72.00	10.29
71036	INTRATHORACIC LESION NEEDLE BI	1	29.00	29.00	29.00	29.00
71060	BRONCHOGRAPHY BILAT	2	240.00	120.00	111.00	55.50
71100	RIBS, UNILAT 2 VW	55	1929.00	35.07	840.00	15.27
71101	RIBS UNLIAT >= 3 VW	40	802.00	20.05	678.00	16.95
71110	RIBS, BILAT 3 VW	4	57.00	14.25	57.00	14.25
71111	RIBS, BILAT >=4 VW	2	84.00	42.00	46.00	23.00
71120	STERNUM 2 VW	20	536.00	26.80	317.00	15.85
71130	STERNOCLAVICULAR JOINT >= 3 VW	2	99.00	49.50	55.00	27.50
72010	SPINE, SURVEY STUDY AP & LAT	3	326.00	108.67	148.00	49.33
72020	SPINE, SINGLE VW	19	763.00	40.16	285.00	15.00
72040	C-SPINE AP & LAT	215	6718.00	31.25	3710.00	17.26
72050	C-SPINE >= 4 VW	364	9497.00	26.09	7021.00	19.29
72052	C-SPINE AP,LAT,OBLIQUE,FLEXION	92	3238.00	35.20	2498.00	27.15
72069	T-SPINE STANDING	7	309.00	44.14	221.00	31.57
72070	T-SPINE AP & LAT	117	3157.00	26.98	1882.00	16.09
72072	T-SPINE AP/LAT/SWIMMER	23	646.00	28.09	425.00	18.48
72080	THORACOLUMBAR AP & LAT	47	1689.00	35.94	929.00	19.77
72090	SCOLIOSIS W SUPINE & ERECT	15	195.00	13.00	195.00	13.00
72100	L-SPINE AP & LAT	373	12993.00	34.83	7012.00	18.80
72110	L-SPINE AP/LAT/OBLIQUE	147	5308.00	36.11	3627.00	24.67
72114	L-SPINE AP/LAT/OBLIQUE/BENDING	11	574.00	52.18	369.00	33.55
72120	LUMBOSACRAL BENDING >= 4 VW	5	265.00	53.00	128.00	25.60
72170	PELVIS AP	136	3963.00	29.14	2301.00	16.92
72190	PELVIS >= 3 VW	15	267.00	17.80	210.00	14.00
72200	SACROILIAC < 3 VW	1	28.00	28.00	15.00	15.00
72202	SACROILIAC >= 3 VW	8	177.00	22.13	133.00	16.63
72220	SACRUM/COCCYX >= 2 VW	29	852.00	29.38	439.00	15.14
72240	MYELOGRAPHY CERVICAL	27	3248.00	120.30	2674.00	99.04
72265	MYELOGRAPHY LUMBOSACRAL	41	4530.00	110.49	3567.00	87.00
72270	MYELOGRAPHY ENTIRE SPINAL CANA	8	1915.00	239.38	1090.00	136.25
72285	DISCOGRAPHY CERVICAL	1	350.00	350.00	350.00	350.00
73000	CLAVICLE	60	1074.00	17.90	756.00	12.60
73010	SCAPULA	15	461.00	30.73	245.00	16.33
73020	SHOULDER 1 VW	229	4272.00	18.66	2620.00	11.44
73030	SHOULDER >= 2 VW	181	7399.00	40.88	3733.00	20.62
73040	ARTHROGRAPHY SHOULDER	10	701.00	70.10	490.00	49.00
73050	ACROMIOCLAVICULAR BILAT W & W/	8	255.00	31.88	163.00	20.38
73060	HUMERUS >= 2 VW	112	1966.00	17.55	1522.00	13.59
73070	ELBOW AP & LAT	83	3416.00	41.16	1959.00	23.60
73080	ELBOW >= 3 VW	297	3883.00	13.07	3331.00	11.22
73090	FOREARM AP & LAT	334	4249.00	12.72	3442.00	10.31
73100	WRIST AP & LAT	679	10774.00	15.87	8265.00	12.17
73110	WRITS >= 3 VW	190	7183.00	37.81	3945.00	20.76

APPENDIX (G)

MANAGED CARE QUERY APPLICATION (MCQA)
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FY-93 DATA 01 OCT 92 TO 30 SEP 93

CPT CODE	PROCEDURE	NUMBER OF SERVICES	TOTAL AMOUNT BILLED	AVG AMT BILLED	TOTAL AMOUNT ALLOWED	AVG AMT ALLOWED
73115	ARTHROGRAPHY WRIST	9	561.00	62.33	364.00	40.44
73120	HAND 2 VW	462	5633.00	12.19	4868.00	10.54
73130	HAND >= 3 VW	176	6485.00	36.85	3432.00	19.50
73140	FINGER	467	6872.00	14.72	4545.00	9.73
73500	HIP UNILAT 1 VW	29	1043.00	35.97	615.00	21.21
73510	HIP UNILAT >= 2 VW	199	5763.00	28.96	3362.00	16.89
73520	HIP BILAT	60	1919.00	31.98	1173.00	19.55
73550	FEMUR AP & LAT	144	3410.00	23.68	2041.00	14.17
73560	KNEE AP & LAT	477	11063.00	23.19	6918.00	14.50
73562	KNEE AP,LAT,OBLIQUE	139	6671.00	47.99	3008.00	21.64
73564	KNEE AP,LAT,OBLIQUE,TUNNEL	92	2934.00	31.89	1862.00	20.24
73565	KNEE, BILAT STANDING AP	32	1945.00	60.78	1231.00	38.47
73590	TIBIA/FIBULA AP & LAT	258	5659.00	21.93	3552.00	13.77
73600	ANKLE AP & LAT	535	6480.00	12.11	5549.00	10.37
73610	ANKLE >= 3 VW	188	7694.00	40.93	3882.00	20.65
73620	FOOT AP & LAT	343	14902.00	43.45	8496.00	24.77
73630	FOOT >= 3 VW	816	17087.00	20.94	10896.00	13.35
73650	CALCANEUS	45	864.00	19.20	569.00	12.64
73660	TOE	109	1419.00	13.02	1019.00	9.35
74000	ABDOMEN AP	198	5221.00	26.37	2777.00	14.03
74010	ABDOMEN AP/OBLIQUE/CONE	86	2356.00	27.40	1261.00	14.66
74020	ABDOMEN AP/OBLIQUE/CONE/DECUBI	95	2977.00	31.34	1622.00	17.07
74022	ABDOMEN COMPLETE W CHEST PA	163	2663.00	16.34	2450.00	15.03
74400	UROGRAPHY	292	14931.00	51.13	10227.00	35.02
74405	UROGRAPHY W CONT	1	81.00	81.00	40.00	40.00
74415	UROGRAPHY INFUSION W NEPHROTOM	50	7075.00	141.50	3534.00	70.68
74420	UROGRAPHY RETROGRADE	3	280.00	93.33	85.00	28.33
74425	UROGRAPHY, ANTEGRADE	3	147.00	49.00	89.00	29.67
74430	CYSTOGRAPHY >= 3 VW	13	849.00	65.31	335.00	25.77
74450	URETHROCYSTOGRAPHY RETROGRADE	11	266.00	24.18	265.00	24.09
74455	URETHROCYSTOGRAPHY VOIDING	37	1636.00	44.22	1221.00	33.00
74470	RENAL CYST TRANSLUMBAR CONT	17	466.00	27.41	451.00	26.53
74475	RENAL PELVIS CATHETER DRAINAGE	4	487.00	121.75	295.00	73.75
74740	HYSTEROSALPINGOGRAPHY	42	1608.00	38.29	1340.00	31.90
76000	FLUOROSCOPY < 1 HR	65	3127.00	48.11	1612.00	24.80
76001	FLUOROSCOPY > 1 HR	3	450.00	150.00	123.00	41.00
76003	FLUORO LOCALIZATION NEEDLE BIO	1	150.00	150.00	36.00	36.00
76010	FOREIGN BODY CHILD	1	20.00	20.00	14.00	14.00
76020	BONE AGE	54	1155.00	21.39	678.00	12.56
76040	BONE LENGTH	18	1150.00	63.89	559.00	31.06
76062	OSSEOUS SURVEY AXIAL & APPENDI	5	293.00	58.60	169.00	33.80
76066	JOINT SURVEY SINGLE VIEW	6	164.00	27.33	144.00	24.00
76096	BREAST NEEDLE LOCAL PREOP	42	2842.00	67.67	2118.00	50.43
76097	BREAST NEEDLE LOCAL PREOP	2	61.00	30.50	61.00	30.50
76098	BREAST SURGICAL SPECIMEN	28	295.00	10.54	276.00	9.86
76100	SINGLE PLANE BODY SECTION	5	345.00	69.00	277.00	55.40
76140	CONSULTATION X-RAY EXAM	4	348.00	87.00	113.00	28.25
76499	UNLIST DIGN X-RAY PROCEDURE	11738	2159074.00	183.94	2021970.00	172.26
		27,895	2,580,582		2,287,685	
	THALLIUM STRESS					
78460	MYOCARDIAL PERFUSION SINGLE	1	100.00	100.00	64.00	64.00
78461	MYOCARDIAL PERFUSION MULTIPLE	22	2806.00	127.55	2203.00	100.14
78465	MYOCARDIAL PERFUSION (SPECT)	72	10709.00	148.74	10313.00	143.24
		95	13615		12580	
	NUCLEAR MEDICINE					
78000	THYROID UPTAKE SINGLE	1	40.00	40.00	35.00	35.00
78001	THYROID UPTAKE MULTIPLE	1	35.00	35.00	28.00	28.00
78006	THYROID IMAGE W SINGLE UPTAKE	3	217.00	72.33	140.00	46.67
78007	THYROID IMAGE W MULTIPLE UPTAK	25	1306.00	52.24	1101.00	44.04
78010	THYROID IMAGE ONLY	13	604.00	46.46	432.00	33.23
78015	THYROID CARCINOMA IMAGING LIMI	1	33.00	33.00	33.00	33.00
78018	THYROID CARCINOMA IMAGING WHOL	11	1063.00	96.64	916.00	83.27
78070	PARATHYROID IMAGING	1	171.00	171.00	30.00	30.00
78075	ADRENAL IMAGING	1	300.00	300.00	46.00	46.00
78110	PLASMA VOLUME	2	88.00	44.00	42.00	21.00
78121	RED CELL VOLUME MULT SAMPLES	2	132.00	66.00	68.00	34.00
78185	SPLEEN IMAGING ONLY	1	81.00	81.00	32.00	32.00
78215	LIVER/SPLEEN IMAGE	9	840.00	93.33	554.00	61.56

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78216	LIVER/SPLEEN W VASCULAR FLOW	2	260.00	130.00	88.00	44.00
78220	LIVER FUNCTION STUDY/SERIAL IM	3	296.00	98.67	100.00	33.33
78223	HEPATOBILIARY DUCTAL SYSTEM W	17	1737.00	102.18	725.00	42.65
78264	GASTRIC EMPTYING STUDY	7	675.00	96.43	312.00	44.57
78270	SCHILLING W/O INTRINSIC FACTOR	1	92.00	92.00	23.00	23.00
78271	SCHILLING W INTRINSIC FACTOR	1	88.00	88.00	75.00	75.00
78272	SCHILLING W & W/O INTRINSIC FA	2	78.00	39.00	48.00	24.00
78280	GI BLOOD LOSS STUDY	1	110.00	110.00	34.00	34.00
78300	BONE LIMITED AREA	30	2064.00	68.80	1545.00	51.50
78305	BONE MULTIPLE AREAS	23	3950.00	171.74	3950.00	171.74
78306	BONE WHOLE BODY	121	12359.00	102.14	10091.00	83.40
78315	BONE THREE PHASE STUDY	12	1822.00	151.83	1210.00	100.83
78428	CARDIAC SHUNT DETECTION	1	216.00	216.00	32.00	32.00
78457	VENOUS THROMBOSIS UNILAT	1	46.00	46.00	46.00	46.00
78464	MYOCARDIAL SPECT SINGLE STUDY	4	81.00	20.25	81.00	20.25
78469	MYOCARDIAL INFARCT (SPECT)	40	3314.00	82.85	3168.00	79.20
78472	CARDIAC BLOOD POOL GATED	13	1666.00	128.15	1315.00	101.15
78580	MYOCARDIAL PERFUSION EJECTION	10	916.00	91.60	336.00	33.60
78585	PULMONARY PERFUSION REBREATH/W	2	418.00	209.00	100.00	50.00
78593	PULMONARY VENT GASEOUS REBREAT	6	581.00	96.83	228.00	38.00
78606	BRIAN WITH VASCULAR FLOW	1	112.00	112.00	54.00	54.00
78607	BRAIN (SPECT)	8	1204.00	150.50	508.00	63.50
78701	KIDNEY W VASCULAR FLOW	10	1228.00	122.80	571.00	57.10
78704	KIDNEY WITH FUNCTION STUDY	1	45.00	45.00	45.00	45.00
78707	KIDNEY W VAS FLOW/FUNCTION STU	6	850.00	141.67	566.00	94.33
78710	KIDNEY IMAGING (SPECT)	1	122.00	122.00	71.00	71.00
78726	KIDNEY FUCTION W PHARMACOLOGIC	5	685.00	137.00	225.00	45.00
78740	URETERAL REFLUX	1	85.00	85.00	30.00	30.00
78761	TESTICULAR W VASCULAR FLOW	2	160.00	80.00	95.00	47.50
78802	TUMOR LOCALIZATION WHOLE BODY	2	228.00	114.00	127.00	63.50
78805	ABSCESS LOCALIZATION LIMITED	1	53.00	53.00	53.00	53.00
78890	GENERATION OF AUTOMATED DATA	1	22.00	22.00	20.00	20.00
78990	PROVISION OF DIAG RADIONUCLIDE	3	66.00	22.00	66.00	22.00
78999	UNLISTED NUC MED PROCEDURE	2	961.00	480.50	961.00	480.50
79000	HYPERTHYROIDISM THERAPY	1	179.00	179.00	94.00	94.00
		413	41679		30450	
	MAMMOGRAPHY					
76090	SINGLE BREAST	107	2489.00	23.26	2169.00	20.27
76091	BILAT BREAST	552	16969.00	30.74	15674.00	28.39
76092	SCREENING	95	5764.00	60.67	5597.00	58.92
		754	25222		23440	
	ULTRASOUND					
76506	HEAD	14	739.00	52.79	428.00	30.57
76511	OPHTHALMIC	2	162.00	81.00	162.00	81.00
76512	OPHTHALMIC CONTACT B-SCAN	4	642.00	160.50	392.00	98.00
76516	OPHTHALMIC BIOMETRY	1	160.00	160.00	76.00	76.00
76519	OPHTHALMIC BIOMETRY LENS POWER	14	2532.00	180.86	1657.00	118.36
76536	HEAD/NECK SOFT TISSUE	16	1176.00	73.50	798.00	49.88
76604	CHEST	2	109.00	54.50	87.00	43.50
76645	BREAST	68	3257.00	47.90	2159.00	31.75
76700	ABDOMINAL	64	6084.00	95.06	3869.00	60.45
76705	ABDOMINAL LIMITED	312	21539.00	69.04	12588.00	40.35
76770	RETROPERITONEAL	79	7711.00	97.61	4902.00	62.05
76775	RETROPERITONEAL LIMITED	10	590.00	59.00	400.00	40.00
76805	PREGNANT UTERUS	38	2084.00	54.84	1988.00	52.32
76815	PREGNANT UTERUS LIMITED	2	307.00	153.50	153.00	76.50
76818	FETAL BIOPHYSICAL PROFILE	10	1925.00	192.50	1060.00	106.00
76825	FETAL CARDIOVASCULAR SYSTEM	3	583.00	194.33	227.00	75.67
76830	TRANSVAGINAL	120	22009.00	183.41	14667.00	122.23
76856	PELVIC NONOBSTETRIC	562	46584.00	82.89	33534.00	59.67
76857	PELVIC NONOBSTETRIC LIMITED	3	277.00	92.33	140.00	46.67
76870	SCROTUM	7	778.00	111.14	465.00	66.43
76872	TRANSRECTAL	20	3979.00	198.95	2272.00	113.60
76880	EXTREMITY	8	435.00	54.38	282.00	35.25
76934	THORACENTESIS GUIDANCE	2	190.00	95.00	86.00	43.00
76938	CYST/RENAL PELVIS ASPIRATION G	5	615.00	123.00	386.00	77.20
76942	NEEDLE BIOPSY GUIDANCE	32	5516.00	172.38	2615.00	81.72
76946	GUIDANCE FOR AMNIOCENTESIS	1	150.00	150.00	86.00	86.00

APPENDIX (G)

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76970	US FOLLOW UP STUDY	1	31.00	31.00	31.00	31.00
76986	US INTRAOPERATIVE	3	500.00	166.67	200.00	66.67
76999	UNLISTED US PROCEDURE	88	5578.00	63.39	3468.00	39.41
		1491	136242		89178	
	GASTROINTESTINAL					
74220	GI ESOPHAGUS	51	2646.00	51.88	1669.00	32.73
74230	PHARYNX SWALLOWING CINERADIOGR	29	737.00	25.41	734.00	25.31
74240	GI TRACT UPPER W/O KUB	125	9051.00	72.41	5802.00	46.42
74241	GI TRACT UPPER W KUB	186	6011.00	32.32	5820.00	31.29
74245	GI TRACT UPPER W SMALL BOWEL	41	2652.00	64.68	2057.00	50.17
74246	GI TRACT UPPER AIR CONT W BARI	52	4138.00	79.58	2475.00	47.60
74247	GI UPPER AIR CONT W BARIUM/KUB	3	99.00	33.00	99.00	33.00
74249	GI AIR CONT W BAR/KUB SMALL BO	1	261.00	261.00	167.00	167.00
74250	SMALL BOWEL	22	956.00	43.45	703.00	31.95
74300	CHOLANGIOGRAPHY SURGERY	18	508.00	28.22	369.00	20.50
74305	CHOLANGIOGRAPHY POSTOP	3	77.00	25.67	56.00	18.67
74328	BILIARY DUCT ENDO CATH	7	448.00	64.00	440.00	62.86
74330	BILIARY/PANCREATIC ENDO CATH	6	459.00	76.50	409.00	68.17
74270	COLON BARIUM ENEMA	97	6769.00	69.78	4752.00	48.99
74280	BARIUM AIR CONT	25	1850.00	74.00	1402.00	56.08
74290	CHOLECYSTOGRAPHY	13	482.00	37.08	263.00	20.23
74340	GI X-RAY GUIDE INTUBATION	2	339.00	169.50	64.00	32.00
		681	37483		27281	
	CT					
76360	CT NEEDLE BIOPSY	9	1550.00	172.22	1385.00	153.89
76370	CT PLACE OF RAD THER	3	372.00	124.00	191.00	63.67
76375	CT OTHER PLANES	233	3585.00	15.39	3268.00	14.03
74160	CT ABDOMEN W CONT	192	40839.00	212.70	26495.00	137.99
73201	CT ARM W CONT	2	873.00	436.50	411.00	205.50
73200	CT UPPER EXTREMITY WO CONTRAST	1	148.00	148.00	111.00	111.00
70460	CT BRAIN W CONT	69	9989.00	144.77	7579.00	109.84
70481	CT EAR W CONT	4	626.00	156.50	516.00	129.00
70487	CT FACE W CONT	34	3161.00	92.97	3118.00	91.71
73701	CT LEG W CONT	2	277.00	138.50	220.00	110.00
70490	CT NECK W CONT	6	479.00	79.83	478.00	79.67
70491	CT NECK W CONT	28	4650.00	166.07	3422.00	122.21
72193	CT PELVIS W CONT	93	15833.00	170.25	13771.00	148.08
72126	CT C-SPINE W CONT	6	858.00	143.00	804.00	134.00
72132	CT L-SPINE W CONT	11	1223.00	111.18	1053.00	95.73
71260	CT THORAX W CONT	102	23106.00	226.53	14478.00	141.94
74150	CT ABDOMEN W/O CONT	26	4756.00	182.92	3150.00	121.15
70450	CT BRAIN W/O CONT	173	21359.00	123.46	16089.00	93.00
70480	CT EAR W/O CONT	9	2329.00	258.78	1452.00	161.33
70486	CT FACE W/O CONT	138	23381.00	169.43	17055.00	123.59
73700	CT LEG W/O CONT	4	406.20	101.55	356.00	89.00
72192	CT PELVIS W/O CONT	17	1975.00	116.18	1721.00	101.24
72125	CT C-SPINE W/O CONT	32	5193.00	162.28	3951.00	123.47
72128	CT T-SPINE W/O CONT	4	564.00	141.00	474.00	118.50
72131	CT L-SPINE W/O CONT	77	15384.00	199.79	10042.00	130.42
71250	CT THORAX W/O CONT	23	4550.00	197.83	2849.00	123.87
74170	CT ABD W & W/O CONT	60	15778.00	262.97	10913.00	181.88
73202	CT ARM W & W/O CONT	1	49.00	49.00	49.00	49.00
70470	CT BRAIN W & W/O CONT	103	17467.00	169.58	13370.00	129.81
70482	CT EAR W & W/O CONT	3	331.00	110.33	331.00	110.33
70488	CT FACE W & W/O CONT	14	1532.00	109.43	1532.00	109.43
70492	CT NECK W & W/O CONT	1	111.00	111.00	111.00	111.00
72194	CT PELVIS W & W/O CONT	27	5754.00	213.11	4810.00	178.15
71270	CT THORAX W & W/O CONT	11	2390.00	217.27	1832.00	166.55
		1518	230878.2		167387	
	MRI					
74181	MRI ABDOMEN	11	5591.00	508.27	3025.00	275.00
73721	MRI ANKLE	49	25537.00	521.16	17558.00	358.33
73220	MRI ARM/HAND	12	7189.00	599.08	3297.00	274.75
70551	MRI BRAIN	94	57668.00	613.49	29626.00	315.17
70552	MRI BRIAN WITH CONTRAST	1	1395.00	*******	674.00	674.00

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CPT CODE	PROCEDURE	NUMBER OF SERVICES	TOTAL AMOUNT BILLED	AVG AMT BILLED	TOTAL AMOUNT ALLOWED	AVG AMT ALLOWED
71550	MRI CHEST	7	4731.00	675.86	2634.00	376.29
73221	MRI ELBOW/WRIST/FINGER	20	6350.00	317.50	3660.00	183.00
70540	MRI FACE/NECK/ORBIT	17	6903.00	406.06	4105.00	241.47
75552	MRI HEART	2	1050.00	525.00	234.00	117.00
73720	MRI LEG	11	6399.00	581.73	2895.00	263.18
72196	MRI PELVIS	13	11696.00	899.69	4979.00	383.00
72156	MRI C-SPINE WITH & WO CONTRAST	1	1350.00	1350.00	1350.00	1350.00
72157	MRI T-SPINE WITH & WO CONTRAST	1	1350.00	1350.00	321.00	321.00
72158	MRI L-SPINE WITH & WO CONTRAST	1	1350.00	974.37	321.00	321.00
72141	MRI C-SPINE	63	61385.00	974.37	26746.00	424.54
72146	MRI T-SPINE	2	1940.00	970.00	955.00	477.50
72148	MRI L-SPINE	55	59996.00	1090.84	27294.00	496.25
72149	MRI L-SPINE	1	1395.00	1395.00	688.00	688.00
70336	MRI TEMPOROMANDIBULAR	15	13000.00	866.67	6612.00	440.80
		376	276275		136974	
	CARDIAC/ARTERIAL/VENOUS					
75625	AORTOGRAPHY ABDOMINAL SERIALOG	1	155.00	155.00	155.00	155.00
75630	AORTOGRAPHY ABD BILAT ILIOFEMO	12	2250.00	187.50	2250.00	187.50
75650	ANGIOGRAPHY CERVICEREBRAL CATH	7	1225.00	175.00	1225.00	175.00
75665	ANGIOGRAPHY CAROTID/CEREBRAL U	1	185.00	185.00	185.00	185.00
75680	ANGIOGRAPHY CAROTID/CEREBRAL B	13	3130.00	240.77	2864.00	220.31
75685	ANGIOGRAPHY VERTEBRAL/CERVICAL	2	365.00	182.50	365.00	182.50
75710	ANGIOGRAPHY EXTREMITY UNILAT	3	465.00	155.00	465.00	155.00
75726	ANGIOGRAPHY VISCERAL	1	155.00	155.00	155.00	155.00
75731	ANGIOGRAPHY ADRENAL UNILAT	1	244.00	244.00	210.00	210.00
75754	ANGIOGRAPHY CORONARY BILAT	9	1410.00	156.67	1258.00	139.78
75766	ANGIOGRAPHY CORONARY BYPASS	1	255.00	255.00	219.00	219.00
75774	ANGIOGRAPHY SELECTIVE	1	155.00	155.00	155.00	155.00
75790	ANGIOGRAPHY ARTERIOVENOUS SHUN	2	310.00	155.00	142.00	71.00
75820	VENOGRAPHY EXTREMITY UNILAT	10	1036.00	103.60	402.00	40.20
75822	VENOGRAPHY EXTREMITY BILAT	1	175.00	175.00	53.00	53.00
75827	VENOGRAPHY CAVAL SERIALOGRAPH	1	155.00	155.00	155.00	155.00
75960	INTRAVASCULAR STENT TRANSCATHE	2	770.00	385.00	525.00	262.50
75962	ARTERY TRANSLUMINAL BALLOON ANG	3	575.00	191.67	575.00	191.67
75964	ANGIOPLASTY, TRANSLUMINAL BALL	1	125.00	125.00	125.00	125.00
75978	VENOUS TRANSLUMINAL BALLOON ANG	1	230.00	230.00	41.00	41.00
		73	13370		11524	
	RADIATION THERAPY					
77261		27	3613.00	133.81	1578.00	58.44
77262		6	1022.00	170.33	528.00	88.00
77263		44	8650.00	196.59	5704.00	129.64
77280		64	6678.00	104.34	3910.00	61.09
77285		11	2075.00	188.64	973.00	88.45
77290		57	14241.00	249.84	7173.00	125.84
77300		171	13459.00	78.71	6113.00	35.75
77305		3	273.00	91.00	135.00	45.00
77310		1	122.00	122.00	62.00	62.00
77315		49	8175.00	166.84	4039.00	82.43
77321		6	1140.00	190.00	444.00	74.00
77328		1	340.00	340.00	121.00	121.00
77331		2	221.00	110.50	102.00	51.00
77332		7	682.00	97.43	231.00	33.00
77333		6	834.00	139.00	291.00	48.50
77334		33	6098.00	184.79	2516.00	76.24
77420		316	35137.00	111.19	22131.00	70.03
77425		148	21060.00	142.30	13724.00	92.73
77430		790	113026.00	143.07	91570.00	115.91
77431		16	1657.00	103.56	1253.00	78.31
77470		2	300.00	150.00	176.00	88.00
77784		3	2100.00	700.00	1269.00	423.00
		1763	240903		164043	

APPENDIX (G)

FY92 MEPRS ANCILLARY WEIGHTED PROCEDURES BY WORKCENTER
FOR SUMMARY ACCOUNT DCA (DIAGNOSTIC RADIOLOGY)

STATE OR COUNTRY	DMIS ID	FACILITY NAME	ANCILLARY WEIGHTED PROCEDURES
ALABAMA	0001	FOX ACH	86506
	0003	LYSTER ACH	157732
	0002	NOBLE ACH	155782
	0004	502nd MEDICAL GROUP	197112
ALASKA	0005	BASSETT ACH	117633
	0007	BH NAVSTA ADAK	23393
ALASKA	0006	3rd MEDICAL CENTER	203713
	0203	343rd MEDICAL GROUP CLINIC	6988
ARIZONA	0008	BLISS ACH	102573
	0011	82nd MEDICAL SQUADRON	41880
	0009	58th MEDICAL GROUP	333318
	0010	355th MEDICAL GROUP	128214
ARKANSAS	0012	97th STRATEGIC HOSPITAL	18196
	0013	314th MEDICAL GROUP	128558
CALIFORNIA	0023	HAYS ACH	311848
	0022	LETTERMAN U.S. ARMY HOSPITAL	135604
	0131	WEED ACH	61529
	0024	NH CAMP PENDLETON	251029
	0028	NH LEMOORE	60602
	0025	NH LONG BEACH	94425
	0027	NH OAKLAND	534928
	0029	NH SAN DIEGO	1357937
	0030	NH TWENTYNINE PALMS	62930
	0026	NMCL PORT HUENEME	25220
	0018	30th MEDICAL GROUP	81932
	0021	22nd MEDICAL GROUP	192849
	0017	93rd MEDICAL GROUP	69768
	0016	323rd FTW HOSPITAL	109979
	0015	9th MEDICAL GROUP	34351
	0020	831st MEDICAL GROUP	30758
	0019	650th MEDICAL GROUP	48073
	0014	DAVID GRANT USAF MED CTR	673177
	0248	655th MEDICAL SQUADRON	4880
	0249	63rd MEDICAL GROUP	28005
	0250	652nd MEDICAL GROUP	70696
COLORADO	0032	EVANS ACH	665016
	0031	FITZSIMONS AMC	1204623
	0033	USAF ACADEMY HOSPITAL	293294
	0251	3415th MEDICAL SQUADRON	9147
	0252	21st MEDICAL GROUP	38413

FY92 MEPRS ANCILLARY WEIGHTED PROCEDURES BY WORKCENTER
FOR SUMMARY ACCOUNT DCA (DIAGNOSTIC RADIOLOGY)

STATE OR COUNTRY	DMIS ID	FACILITY NAME	ANCILLARY WEIGHTED PROCEDURES
CONNECTICUT	0035	NH GROTON	100645
DELAWARE	0036	436th MEDICAL GROUP	100774
WASHINGTON DC	0037	WALTER REED AMC	1408727
FLORIDA	0039	NH JACKSONVILLE	531833
	0040	NH ORLANDO	188254
	0038	NH PENSACOLA	266873
	0041	NMCL KEY WEST	9176
	0044	31st MEDICAL GROUP	88433
	0045	56th MEDICAL GROUP	223099
	0043	325th MEDICAL GROUP	142162
	0046	45th MEDICAL GROUP	127207
	0042	646th MEDICAL GROUP	270287
GEORGIA	0047	EISENHOWER AMC	827154
	0048	MARTIN ACH	509258
	0049	WINN ACH	551429
	0050	347th MEDICAL GROUP	41836
	0051	653rd MEDICAL GROUP	124512
HAWAII	0052	TRIPLER AMC	1324693
	0280	NMCL PEARL HARBOR	99257
	0287	15th MEDICAL GROUP	21643
IDAHO	0053	366th MEDICAL GROUP	55589
ILLINOIS	0056	NH GREAT LAKES	194183
	0054	CHANUTE TTC HOSPITAL	56167
	0055	USAF MED CTR SCOTT	333067
INDIANA	0294	HAWLEY ACH	56171
	0293	305th MEDICAL SQUADRON	8897
KANSAS	0057	IRWIN ACH	260081
	0058	MUNSON ACH	92193
KENTUCKY	0060	BLANCHFIELD ACH	370065
	0061	IRELAND ACH	300803
LOUISIANA	0064	BAYNE-JONES ACH	181396
	0297	NMCL NEW ORLEANS	16679
	0062	2nd MEDICAL GROUP	117241
	0063	23rd MEDICAL GROUP	17829
MAINE	0065	42nd MEDICAL GROUP	31358
MARYLAND	0069	KIMBROUGH ACH	169037
	0068	NH PATUXENT RIVER	31049
	0067	NNMC BETHESDA	1093225
	0306	NMCL ANNAPOLIS	38195
	0066	MALCOLM GROW USAF MEDICAL CENTER	565479

APPENDIX (H)

FY92 MEPRS ANCILLARY WEIGHTED PROCEDURES BY WORKCENTER
FOR SUMMARY ACCOUNT DCA (DIAGNOSTIC RADIOLOGY)

STATE OR COUNTRY	DMIS ID	FACILITY NAME	ANCILLARY WEIGHTED PROCEDURES
MASSACHUSETTS	0070	CUTLER ACH	88562
	0310	647th MEDICAL SQUADRON	11489
MICHIGAN	0071	379th MEDICAL GROUP	35106
	0072	410th MEDICAL GROUP	24655
MISSISSIPPI	0074	14th MEDICAL SQUADRON	49255
	0073	KEESLER MEDICAL CENTER	1090603
MISSOURI	0075	L. WOOD ACH	384660
	0076	351st MEDICAL GROUP	42876
MONTANA	0077	43rd MEDICAL GROUP	53524
NEBRASKA	0078	EHRLING BERQUIST HOSPITAL	181839
NEVADA	0079	554th MEDICAL GROUP	197787
NEW HAMPSHIRE	0321	NMCL PORTSMOUTH	24027
NEW JERSEY	0081	PATTERSON ACH	109627
	0082	WALSON ACH	203670
	0326	438th MEDICAL GROUP	9521
NEW MEXICO	0085	27th MEDICAL GROUP	83329
	0084	49th MEDICAL GROUP	96733
	0083	542nd MEDICAL GROUP	200035
NEW YORK	0086	KELLER ACH	77205
	0330	GUTHRIE AHC	73296
	0087	380th MEDICAL GROUP	26538
	0088	416th MEDICAL GROUP	53251
NORTH CAROLINA	0089	WOMACK AMC	599090
	0091	NH CAMP LEJEUNE	236199
	0092	NH CHERRY POINT	80224
	0090	4th MEDICAL GROUP	85059
	0335	23rd MEDICAL GROUP	9611
NORTH DAKOTA	0093	319th MEDICAL GROUP	34239
	0094	5th MEDICAL GROUP	124276
OHIO	0095	USAF MED CTR WRIGHT-PATTERSON	611221
OKLAHOMA	0098	REYNOLDS ACH	431818
	0097	97th MEDICAL GROUP	32135
	0096	654th MEDICAL GROUP	132286
	0338	71st MEDICAL SQUADRON	11192
PENNSYLVANIA	0099	NMCL PHILADELPHIA	55107
RHODE ISLAND	0100	NH NEWPORT	91546
SOUTH CAROLINA	0105	MONCRIEF ACH	288998
	0104	NH BEAUFORT	87548
	0103	NH CHARLESTON	297001
	0102	354th MEDICAL GROUP	42847
	0101	363rd MEDICAL GROUP	124335
	0356	437th MEDICAL SQUADRON	12194

APPENDIX (H)

FY92 MEPRS ANCILLARY WEIGHTED PROCEDURES BY WORKCENTER
FOR SUMMARY ACCOUNT DCA (DIAGNOSTIC RADIOLOGY)

STATE OR COUNTRY	DMIS ID	FACILITY NAME	ANCILLARY WEIGHTED PROCEDURES
SOUTH DAKOTA	0106	28th MEDICAL GROUP	68752
TENNESSEE	0107	NH MILLINGTON	117933
TEXAS	0109	BROOKE AMC	1319936
	0110	DARNALL ACH	854289
	0108	WILLIAM BEAUMONT AMC	754890
	0118	NH CORPUS CHRISTI	96098
	0114	47th MEDICAL SQUADRON	25747
	0111	64th MEDICAL SQUADRON	49404
	0115	67th MEDICAL GROUP	98301
	0112	96th MEDICAL GROUP	76904
	0116	ROBERT THOMPSON STRATEGIC HOSPITAL	214129
	0113	396th MEDICAL GROUP	172181
	0117	WILFORD HALL USAF MED CTR	1460539
	0366	12th MEDICAL SQUADRON	69003
	0364	391st MEDICAL SQUADRON	18321
	0363	648th MEDICAL SQUADRON	8242
	0365	651st MEDICAL SQUADRON	31225
UTAH	0119	649th MEDICAL GROUP	75138
VIRGINIA	0123	DEWITT ACH	198666
	0122	KENNER ACH	91256
	0121	MCDONALD ACH	181850
	0124	NH PORTSMOUTH	1091793
	0385	NMCL QUANTICO	37414
	0120	1st MEDICAL GROUP	158435
WASHINGTON	0125	MADIGAN AMC	699319
	0126	NH BREMERTON	383067
	0127	NH OAK HARBOR	122113
	0396	NMCL SEATTLE	9128
	0128	92nd MEDICAL GROUP	101137
	0395	62nd MEDICAL GROUP	11193
WYOMING	0129	90th MEDICAL GROUP	

42943

FY92 MEPRS ANCILLARY WORKLOAD BY WORKCENTER
FOR SUMMARY ACCOUNT DIA (NUCLEAR MEDICINE)

STATE OR COUNTRY	DMIS ID	FACILITY NAME	WORKLOAD
ALABAMA	0004	502nd MEDICAL GROUP	126244
ALASKA	0006	3rd MEDICAL CENTER	93637
CALIFORNIA	0023	HAYS ACH	83181
	0024	NH CAMP PENDLETON	19782
	0025	NH LONG BEACH	13902
	0027	NH OAKLAND	763318
	0029	NH SAN DIEGO	701185
	0021	22nd MEDICAL GROUP	72693
	0014	DAVID GRANT USAF MED CTR	642847
COLORADO	0032	EVANS ACH	27476
	0031	FITZSIMONS AMC	2131686
	0033	USAF ACADEMY HOSPITAL	139437
CONNECTICUT	0035	NH GROTON	13126
FLORIDA	0039	NH JACKSONVILLE	141928
	0040	NH ORLANDO	62198
	0038	NH PENSACOLA	25007
	0042	646th MEDICAL GROUP	77792
GEORGIA	0047	EISENHOWER AMC	401558
	0048	MARTIN ACH	86152
HAWAII	0052	TRIPLER AMC	591434
ILLINOIS	0056	NH GREAT LAKES	44035
	0055	USAF MED CTR SCOTT	175658
KENTUCKY	0061	IRELAND ACH	163018
MARYLAND	0067	NNMC BETHESDA	600189
	0066	MALCOLM GROW USAF MEDICAL CENTER	240505
MISSISSIPPI	0073	KEESLER MEDICAL CENTER	310362
MISSOURI	0075	L. WOOD ACH	96625
NORTH CAROLINA	0089	WOMACK AMC	980815
	0091	NH CAMP LEJEUNE	9453
OHIO	0095	USAF MED CTR WRIGHT-PATTERSON	365570
OKLAHOMA	0098	REYNOLDS ACH	107803
RHODE ISLAND	0100	NH NEWPORT	6005
SOUTH CAROLINA	0105	MONCRIEF ACH	48119
	0103	NH CHARLESTON	14605
TENNESSEE	0107	NH MILLINGTON	3470
TEXAS	0109	BROOKE AMC	1170062
	0110	DARNALL ACH	585184
	0108	WILLIAM BEAUMONT AMC	640325
	0118	NH CORPUS CHRISTI	4286
	0116	ROBERT THOMPSON STRATEGIC HOSPITAL	45992
	0113	396th MEDICAL GROUP	40309
	0117	WILFORD HALL USAF MED CTR	822808
VIRGINIA	0124	NH PORTSMOUTH	1055461
WASHINGTON	0125	MADIGAN AMC	1079629
	0126	NH BREMERTON	39300

SUMMARY OF CHAMPUS RADIOLOGICAL PROCEDURES
FY 93 DATA 01 OCT 92 TO 30 SEP 93

CPT CODES	SERVICE PROVIDED	THIRD PARTY COLLECTIONS (TPC) COST OF SERVICE	EST ALLOW COST	# POTENT TPC EXAMS	# HISTOR TPC (20%)	POTENT THIRD PARTY COLLECT	POTENT THIRD PARTY ALLOW
71100-71101	X-RAY RIBS (ALL),PER SIDE (UNILAT)	$113	$17	95	19	$2,147	$323
72170-72190	X-RAY HIPS, BILAT	$114	$14	151	30	$3,443	$423
74220-74340	UPPER GASTROINTESTIONAL STUDY WITH CONTRAST	$143	$40	689	138	$19,705	$5,512
74740	HYSTEROSALPINGOGRAM	$126	$32	42	8	$1,058	$269
76090-76092	MAMOGRAM, BILATERAL OR WITH LOCALIZATION	$129	$31	3270	654	$84,366	$20,274
76506-76999	ULTRASOUND, PER STUDY	$116	$60	1591	318	$36,911	$19,092
76700	ULTRASOUND, COMPLETE ABDOMEN OR WITH BIOPSY	$198	$61	64	13	$2,534	$781
70450,70480,70486	CAT HEAD/BRAIN WITHOUT CONTRAST	$193	$108	320	64	$12,352	$6,912
70460,70481,70487	CAT HEAD/BRAIN WITH CONTRAST	$218	$105	107	21	$4,665	$2,247
70470,70482,70488	CAT HEAD/BRAIN WITH AND WITHOUT CONTRAST OR POST FOSSA AND IAM/IACS	$307	$127	120	24	$7,368	$3,048
71260,71250,72125	CAT SCAN CHEST	$339	$133	213	43	$14,441	$5,666
74160,74170,72194	CAT SCAN ABDOMEN, PER STUDY	$169	$141	503	101	$17,001	$14,185
73700	CAT SCAN EXTREMITY WITHOUT CONTRAST	$197	$89	4	1	$158	$71
73701,73201	CAT SCAN EXTREMITY WITH CONTRAST	$226	$157	4	1	$181	$126
74170,70470,7082	CAT SCAN WITH AND WITHOUT CONTRAST	$393	$150	220	44	$17,292	$6,600
71550,70551,75552	MRI WITHOUT CONTRAST	$279	$200	85	17	$4,743	$3,400
70552	MRI WITH CONTRAST BRAIN	$481	$481	1	0	$96	$96
72146,72141,72148	MRI SPINE (ALL), CHEST AND ABDOMEN WITHOUT CONTRAST	$229	$229	121	24	$5,542	$5,542
	MRI SPINE (ALL) WITH CONTRAST	$507	$300	0	0	$0	$0
73721,73220,73221	MRI EXTREMITY WITHOUT CONTRAST	$360	$298	92	18	$6,624	$5,483
	MRI EXTREMITY WITH AND WITHOUT CONTRAST	$279	$300	0	0	$0	$0
				7,692	1,538	$240,629	$100,049

APPENDIX (I)

SUMMARY OF CHAMPUS RADIOLOGICAL PROCEDURES
FY 93 DATA 01 OCT 92 TO 30 SEP 93

CPT CODES	SERVICE PROVIDED	COST OF SERVICE	EST ALLOW COST	# POTENT TPC EXAMS	50% PATIENT DEMAND RADIOLOGY	# HISTOR TPC (20%)	POTENT THIRD PARTY COLLECT	POTENT THIRD PARTY ALLOW
		THIRD PARTY COLLECTIONS (TPC)						
71100-71101	X-RAY RIBS (ALL),PER SIDE (UNILAT)	$113	$17	95	47.5	10	$1,074	$162
72170-72190	X-RAY HIPS, BILAT	$114	$14	151	75.5	15	$1,721	$211
74220-74340	UPPER GASTROINTESTIONAL STUDY WITH CONTRAST	$143	$40	689	344.5	69	$9,853	$2,756
74740	HYSTEROSALPINGOGRAM	$126	$32	42	21	4	$529	$134
76090-76092	MAMOGRAM, BILATERAL OR WITH LOCALIZATION	$129	$31	3270	1635	327	$42,183	$10,137
76506-76999	ULTRASOUND, PER STUDY	$116	$60	1591	795.5	159	$18,456	$9,546
76700	ULTRASOUND, COMPLETE ABDOMEN OR WITH BIOPSY	$198	$61	64	32	6	$1,267	$390
70450,70480,70486	CAT HEAD/BRAIN WITHOUT CONTRAST	$193	$108	320	160	32	$6,176	$3,456
70460,70481,70487	CAT HEAD/BRAIN WITH CONTRAST	$218	$105	107	53.5	11	$2,333	$1,124
70470,70482,70488	CAT HEAD/BRAIN WITH AND WITHOUT CONTRAST OR POST FOSSA AND IAM/IACS	$307	$127	120	60	12	$3,684	$1,524
71260,71250,72125	CAT SCAN CHEST	$339	$133	213	106.5	21	$7,221	$2,833
74160,74170,72194	CAT SCAN ABDOMEN, PER STUDY	$169	$141	503	251.5	50	$8,501	$7,092
73700	CAT SCAN EXTREMITY WITHOUT CONTRAST	$197	$89	4	2	0	$79	$36
73701,73201	CAT SCAN EXTREMITY WITH CONTRAST	$226	$157	4	2	0	$90	$63
74170,70470,7082	CAT SCAN WITH AND WITHOUT CONTRAST	$393	$150	220	110	22	$8,646	$3,300
71550,70551,75552	MRI WITHOUT CONTRAST	$279	$200	85	42.5	9	$2,372	$1,700
70552	MRI WITH CONTRAST BRAIN	$481	$481	1	0.5	0	$48	$48
72146,72141,72148	MRI SPINE (ALL), CHEST AND ABDOMEN WITHOUT CONTRAST	$229	$229	121	60.5	12	$2,771	$2,771
	MRI SPINE (ALL) WITH CONTRAST	$507	$300	0	0	0	$0	$0
73721,73220,73221	MRI EXTREMITY WITHOUT CONTRAST	$360	$298	92	46	9	$3,312	$2,742
	MRI EXTREMITY WITH AND WITHOUT CONTRAST	$279	$300	0	0	0	$0	$0
				7,692	3,846	769	$120,314	$50,024

APPENDIX (J)

Family Practice Clinic
Third Party Collection
Patient Encounter Form Date ___/___/___

Addressograph (Name, FMP–SSN, DOB)
Name:

FMP/SSN

DOB:

INSURANCE: YES ___ NO ___
INSURANCE CO. NAME:

NHCHASN 7000/10 (Rev Mar 93)

[ ] Acree	[ ] Epling	[ ] Kutzera	[ ] Simpson
[ ] Axman	[ ] Fischer	[ ] MacDonald	[ ] Sofianek
[ ] Bickel	[ ] Floyd	[ ] Maher	[ ] Walker
[ ] Blackburn	[ ] Frazier	[ ] Mason	[ ] Waskowski
[ ] Blonski	[ ] Greenawald	[ ] Mentel	[ ] _____
[ ] Butler	[ ] Gresens	[ ] Moya	[ ] _____
[ ] Chabazi	[ ] Herrold	[ ] Norcross	
[ ] Cleary	[ ] Hudson	[ ] Porvaznik	
[ ] Cohen	[ ] Hurley	[ ] Quinlan	***Circle one:***
[ ] Counard	[ ] Jones B.	[ ] Renken	NEW Visit
[ ] Dolney	[ ] Jones W.	[ ] Rutledge	F/UP Visit
[ ] Donaldson	[ ] Kidder	[ ] Schhreiber	
[ ] Elwood	[ ] Knauer	[ ] Schrubbe	

Is today's visit result of accident?
Yes___ No___ MVA ___

Circle only one please:
Pt Info: Active RET DEP RES
Branch: N A MC CG AF

Office Visit	Minutes	New Pt	Estab Pt	Consult
Brief	10	[ ] 99201	[ ] 99211	[ ] 99241 15
Limited	20	[ ] 99202	[ ] 99212	[ ] 99242 30
Intermed	30	[ ] 99203	[ ] 99213	[ ] 99243 40
Extended	45	[ ] 99204	[ ] 99214	[ ] 99244 60
Comprehen	60	[ ] 99205	[ ] 99215	[ ] 99245 80

[ ] 314.40 ADD	[ ] 558.9 Diarrhea	[ ] 381.20 Otitis Media, Chronic
[ ] 795.0 Abnormal Pap	[ ] 780.4 Dizziness	[ ] 381.00 Otitis Media, Serous
[ ] 682.9 Abscess/Cyst/Ulcer	[ ] 305.90 Drug Abuse	[ ] 789.0 Pain, Abdomen
[ ] 706.1 Acne	[ ] 304.90 Drug Dependence	[ ] 729.5 Pain, Arm/Shoulder
[ ] 309.0 Adjustment D/O	[ ] 693.0 Drug Reaction	[ ] 724.5 Pain, Back
[ ] 303.9 Alcohol Dependence	[ ] 788.1 Dysuria	[ ] 786.5 Pain, Chest
[ ] 995.3 Allergic Reaction	[ ] 788.3 Enuresis	[ ] 729.5 Pain, Foot
[ ] 477.9 Allergic Rhinitits	[ ] 381.81 Eustachian Tube Dys	[ ] 723.1 Pain, Neck
[ ] 626.0 Amenorrhea	[ ] 783.4 Failure to Thrive	[ ] 625.9 Pain, Pelvic–female
[ ] 285.9 Anemia	[ ] 780.7 Fatigue/Malaise	[ ] 785.1 Palpitations
[ ] 413.9 Angina	[ ] 780.6 Fever	[ ] 533.90 Peptic Ulcer Disease
[ ] 308.0 Anxiety Reaction	[ ] 610.1 Fibrocystic Breast	[ ] 462 Pharyngitis
[ ] 715.0 Arthritis, Degen	[ ] 535.0 Gastritis	[ ] 034.0 Pharyngitis/Strep
[ ] 714.0 Arthritis, Rheum	[ ] 558.9 Gastroenteritis	[ ] V70.0 Physical Exam
[ ] 716.9 Arthritis, Unspec	[ ] 300.2 General Anixety Dis	[ ] 614.9 PID/Cervicitis
[ ] 429.2 ASCAD	[ ] 274.9 Gout	[ ] 486 Pneumonia/unpsec
[ ] 493.9 Asthma	[ ] 578.9 GI Bleeding	[ ] 627.1 Postmenopausal Bleed
[ ] 600 BPH	[ ] 346.9 Headache, Migraine	[ ] 601.0 Prostatitis
[ ] 239.3 Breast Lump	[ ] 784.0 Headache, Unspec	[ ] 590.80 Pyelonephritis
[ ] 490 Bronchitis	[ ] 445.6 Hemorrhoids	[ ] 782.1 Rash
[ ] 519.1 Bronchospasm	[ ] 272.0 Hypercholesterolemia	[ ] 569.3 Rectal Bleeding
[ ] 949.0 Burn, Unspec	[ ] 643.1 Hyperemesis Gravidarium	[ ] 586 Renal Failure
[ ] 727.3 Bursitis	[ ] 272.4 Hyperlipidemia	[ ] 780.3 Seizure D/O
[ ] 682.9 Cellulitis	[ ] 401.9 Hypertension	[ ] 461.9 Sinusiitis
[ ] 847.0 Cervical Strain	[ ] 242.9 Hyperthroidism	[ ] 780.50 Sleep D/O
[ ] 428.0 CHF	[ ] 244.9 Hypothyroidism	[ ] 780.2 Syncope
[ ] 574.2 Cholelithiasis	[ ] 684 Impetigo	[ ] 305.1 Tobacco Use D/O
[ ] 372.30 Conjunctivitis	[ ] 607.84 Impotence	[ ] 854.00 Trauma, Head
[ ] 564.0 Constipation	[ ] 628.9 Infertility, female	[ ] 708.9 Urticaria
[ ] 918.1 Corneal Abrasion	[ ] 564.1 Irritable Bowel Syndrome	[ ] 465.9 URI
[ ] 786.2 Cough	[ ] 379.8 Laceration	[ ] 599.0 UTI
[ ] 496 COPD	[ ] 626.4 Menstrual, Irregular	[ ] 626.9 Vaginal Bleeding
[ ] 429.2 CVA	[ ] 626.2 Menorrhea	[ ] 616.0 Vaginitis, Unspec
[ ] 595.9 Cystitis	[ ] 787.0 Nausea/Vomiting	[ ] 078.1 Venereal Warts
[ ] 276.5 Dehydration	[ ] 650 OB Visit	[ ] 780.4 Vertigo
[ ] 298.9 Dementia/Confusion	[ ] 278.0 Obesity	[ ] 079.9 Viral Syndrome
[ ] 691.9 Dermatitis, Contact	[ ] 380.10 Otitis, Externa	[ ] 078.1 Warts
[ ] 250.0 Diabetes Mellitus	[ ] 382.9 Otitis Media Acute	[ ] V20.2 Well Baby Exam